



# *McDowell Technical Community College*

## CATALOG AND STUDENT HANDBOOK

### **2015-2016**

#### *McDowell Technical Community College*

54 College Drive  
Marion, NC 28752  
(828) 652-6021  
Fax (828) 652-1014  
[www.mcdowelltech.edu](http://www.mcdowelltech.edu)

#### *MTCC Downtown Center @ NC Works Career Center*

Mailing: 54 College Drive  
Located at 316 Baldwin Avenue  
Marion, NC 28752  
(828) 659-6001  
Fax (828) 659-8733

#### *MTCC Small Business Center*

Mailing: 54 College Drive  
Located at 100 Business Center Drive  
Marion, NC 28752  
(828) 652-0633  
Fax (828) 659-8038

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This catalog should not be considered a contract between McDowell Technical Community College and the student. Curriculum offerings may be altered to meet the needs of individuals and a minimum enrollment is required for offering or continuing a class. Tuition and fees are subject to change.

Questions not answered in this publication may be directed to the Student Services Office.

McDowell Technical Community College is an equal opportunity/affirmative action institution. McDowell Technical Community College does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provision of services.

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# MTCC BOARD OF TRUSTEES

*Darren Waugh, Chairman*

*Joy Shuford, Vice-Chairman*

## **Appointees of the Governor's Office**

## **Expiration of Term**

Nancy Hunter	June 30, 2016
Haskell Davis	June 30, 2017
David Patenaude	June 30, 2018
(vacant at printing time)	June 30, 2019

## **Appointees of the McDowell County Board of Education**

Gwen Conley	June 30, 2016
Eugene Holland	June 30, 2017
Matt Smith	June 30, 2018
Stacy Truesdell	June 30, 2019

## **Appointees of the McDowell County Commissioners**

Joy Shuford, Vice-Chair	June 30, 2016
James Washburn	June 30, 2017
Joseph R. Kaylor	June 30, 2018
Darren Waugh, Chair	June 30, 2019

The President of the Student Government Association serves as an Ex-Officio, Non-Voting Member of the Board of Trustees.

## **ADMINISTRATIVE OFFICERS**

President	Dr. Bryan W. Wilson
Vice-President for Finance and Administration	Ryan Garrison
Vice-President for Learning and Student Services	Dr. John Gossett
Dean of Curriculum Programs	Dr. Jim Benton
Dean of Health Sciences	Penny Cross

# MTCC FOUNDATION

In 1977, the McDowell Technical Community College Foundation, Inc. was created to enrich resource development and enhance the quality of college life by procurement of gifts from the private sector. The Foundation operates under the auspices of a Board of Directors who plan and conduct fundraising projects, pledge campaigns and related programs. Individuals or organizations wishing to assist the College may do so by making tax deductible donations of equipment, cash, bonds, stocks, real estate, trusts, life insurance, or bequests. For additional information, contact Dr. Bryan W. Wilson, MTCC President, at 828-652-0630 or Susan Berley, Resource Development Officer, at 828-652-0636.

Members of the Foundation are:

## **Terms expire June, 2015**

Sim Butler (Hospice)  
Linda Cloherty (Carson House)  
Rachel Dowdle (Wells-Fargo)  
Norman Guthrie (Retired)

## **Terms expire June, 2016**

Robert Ayers (Retired)  
Marion Baker (Retired)  
Bob Boyette (City of Marion)  
Marsh Dark (Morrow Insurance)  
Laura Dover Doran (Dover Insulation)  
Rob Noyes (Countryside BBQ)

## **Terms expire June, 2017**

William Hollifield (CPA)  
Steve McMahan (Rock Tenn)  
Ellen Shelley (Attorney)  
Helen Shimp (Retired)

Student Government Representative  
Board of Trustee Representative  
Board of Trustee Representative

## **MTCC Staff**

Dr. Bryan W. Wilson (President), Secretary  
Ryan Garrison (Vice President for Finance & Administration), Treasurer  
Dr. John Gossett (Vice President for Learning and Student Services)  
Susan Berley (Resource Development Officer)  
Michael Lavender (Director of External Relations)

## **ABOUT THIS CATALOG**

This catalog was prepared by Michael Lavender, Director of External Relations, using Adobe CS5 InDesign software.

<b>McDowell Technical Community College Phone List</b>					
Dr. Bryan Wilson, Presidt	652-0635	Ryan Garrison, VP Fin.	652-0627	Penny Cross, Dean	652-0645
Dr. John Gossett, VP	652-0676	President's Office	652-0630		
Dr. Jim Benton, Dean	659-0444	Rhonda Silver	652-0630		
Abernathy, Eric	652-0679	Foster, Belinda	652-0611	Ramsey, Dorothy	652-0617
Adcock, Tab	659-0492	Fowler, Richard	652-0608	Reeves, Gwen	652-0678
Adjunct Faculty Office	659-0426	Gallion, Rita (UAMC)	652-0619	Robertson, Steve (Elec.)(UAN	652-0692
ADN (RN)	652-0666	Getty, Richard	652-0694	Robinson, Lisa EC Principal	659-0415
ARC Lab. Bldg. 11	659-0408	Goble-Talley, Anna(E-I)	652-0639	Rose, Breanna	652-0618
Auto Body	652-0690	Goreck,Shanna(RuralHealth	659-0499	Sain, Pamela (R-U)	659-0451
Auto Mechanics	652-0671	Hamlin, Kelly	652-0629	Schultz, Robert #139	659-6001
Ayers, Sandra	652-0686	Harmon, Ladelles (Bo)	652-0626	Scoles, Keith (UAMC)	652-0693
Bailey, Aprille	652-0698	Harris, Grey #825	659-7810	Security Cell	442-1084
Bailey, Matt (UAMC)	652-0693	Helton, Sherry	652-0653	Security Office	652-0673
Bartlett, Lora (A-D)	652-0605	Hensley, Brooke	652-0610	Shelton, Lisa	652-0612
Baxter	756-6660	Hensley, Jill	652-0616	Short, Donna	652-0631
Benfield, Susan (ADN)	652-0641	Hensley, Jimmy #140	659-6001	Shutord, Eddie (UAMC)	652-0652
Boardroom Bldg. 17	652-0601	Hill, Cassandra	652-0600	Silkwood, Pam	659-0439
Book Store	652-0613	Hollifield, Randy	659-0408	Silver, Becky	652-0610
Book Store Office	652-0678	Hollifield, Randy	659-0418	Silver, Caitline ARC	652-0408
Bowling, Chuck	659-0459	Hyatt, Marc	659-0425	Silver, Frank #5140	659-7810
Bradburn, Freddy	652-0664	Ingle, Terri EC Counselor	659-0413	Silver, Sharon	652-0609
Broome, Jerry Ext. 136	659-6001	Jackson, Joan	652-0633	Sloop, John (Hort.) Prison	659-7810
Bruce, Paula	652-0661	Jacobs, Debra #138	659-6001	Small Bus Center	652-0634
Buchanan, Darian	652-0688	Job Link	659-6001	Smith, Melisa	652-0637
Buchanan, Karen	652-0685	Johnson, Margaret	652-0646	Smith, Nicole	659-0428
Buff, Stacy	652-0663	Kanipe, Dean	652-0634	Smith, Sharon	652-0697
Burleson, Michele	652-0660	King, Edwin #160	659-6001	Snart, Clarence	652-0642
Butner, Judy	652-0620	Lavender, Michael	652-0681	Sprinkle, Mike	652-0695
Byrd, Lisa	652-0624	Ledbetter, Brad	652-0674	Stacey, Cherisse (V-Z)	659-0466
Byrd, Wayne	659-0494	Ledbetter, Kim	652-0602	Steele, Rhonda	652-0654
Cafe	652-0615	Ledbetter, Mary Beth #137	659-6001	Stines, Wayne (UAMC)	652-0693
Cain, Wingate	652-0632	Library	652-0604	Tallent, Pat	659-0401
Career & College Readiness	652-0657	Long, Susan	659-0418	Throneburg, Stephanie	652-0646
Carpentry	652-0695	Lonon, Stephanie	652-0622	Tipton, Sharon	652-0625
Cloninger, Phyllis	652-0623	Mabry, Ann	652-0612	Toney, David	652-0690
Cole, Crystal	659-0421	Machine Shop	652-0693	Tuttell, Richard (MCI)	659-7810
Coller, Carl	652-0666	Macopson, Elmer	652-0603	Valentino, Jorge	659-0404
Cosmetology Lobby	652-0687	Madden, Blake(Photo)	652-0682	Valentino, Teresa	652-0657
Cosmetology Office	652-0610	Maintenance	652-0614	Walsh, Terrance	652-0643
Costner, Carl	652-0614	Mauney, Dick	652-0696	Ward, Jamie (UAMC)	652-0689
Crawley, Kelly	652-0667	McClelland, Terri(Lab628)	652-0691	Watts, Beverly	652-0669
Creech, Joyce Ext.135	659-6001	McCraw, Donnie	652-0671	Weather (Staff)	659-0447
Cross, Chip	652-0672	Melton, Judy (J-M)	652-0647	Weather, (Students)	659-0419
Culp, Jennifer	652-0650	Michaels, Lindsey (N-Q)	652-0644	Weiler, Joan	652-0651
Davis, Donna	659-7810	Mills, Rachael	652-0612	Welding	652-0689
Day Care Baby Room	652-0600	Moore, Alan	652-0677	Wilson, Scott	659-0494
Day Care Kitchen	652-0612	Moore, Debbie	652-0607	Wimsatt, Sherry	659-0408
Day Care Office	652-0637	Morgan, Andy	652-0655	Wright, Diane	659-0427
DeAngelus, Ramona	652-0684	Morgan-Truett, Lorrie	652-0662		
Dietrich, Susan	652-0659	MTCC Adv. Manuf. Center	652-0619		
Dillard, John	652-0606	Nur Asst Info Line (CNA)	652-0639		
Dobson, Valerie	652-0699	Oliver, Gale #154	659-6001		
Duncan, Julia	652-0668	Ollis, James (Maint.)	652-0638		
Earle, Tim	659-0484	Owenby, Sherri	652-0612		
Early College Sec.	659-0411	Padgett, Julie	659-0417		
Edwards, Wanda	652-0600	Parker, Jo Ann	652-0621		
Electronics	652-0692	Pearson, Rachel	652-0658		
Esthetics Lobby	652-0640	Pell Grant Info Line	659-0450		
FAX Bldg. 17	659-0437	Penley, Jeff	652-0679		
FAX Business Office	652-1603	Perkins, Summer	659-0493		
FAX Cont. Ed.	652-8008	Perry, Jay	652-0670		
FAX Job Link	659-8733	Poteat, Anita	652-0610		
FAX MTCC Library	652-1014	Price, Pam #131	659-6001		
FAX Small Business	659-9710	Print Shop	652-0679		
FAX Student Service	659-0430	Prison	659-7810		
Foothills	652-4088	Putnam, Deborah	652-0675		

# ACADEMIC CALENDAR

## FALL SEMESTER, 2015

All full-time faculty back on campus .....	August 3
Pre-Registration for Fall Semester Begins .....	August 3
Financial Aid Early Registration/Payment .....	August 17
Late Registration .....	August 18
Faculty Association Meeting @ 2:00 pm .....	August 19
New Student Orientation .....	August 19
Staff Development for Faculty and Staff.....	August 19
First Day of Class.....	August 20
End Drop/Add.....	August 25
Tuition Refund Request Deadline .....	August 31
Labor Day Holiday.....	September 7
Workday/Annual Leave Day (No Classes) .....	September 8
Last Day to Receive Non-Punitive Grade of "W" .....	September 23
SGA Fall Festival .....	October 27
Veterans Day Holiday Observed .....	November 11
Registration for Spring Semester Begins .....	November 16
Thanksgiving Holidays .....	November 26-27
Registration for Spring Semester Ends .....	December 1
Last Day of Classes .....	December 16
Final Grades/Attendance Due @ 10:00 am .....	December 18
Campus Closed .....	December 21 - 23
Christmas Holidays .....	December 24 - 25
Campus Closed.....	December 28 - 31

## SPRING SEMESTER, 2016

New Year Holiday observed.....	January 1
Financial Aid Early Registration/Payment (1:00 pm – 6:00 pm) .....	January 5
Faculty Development (1 pm – 2:30 pm) .....	January 5
Late Registration .....	January 6
Faculty Association Meeting @ 2:00 pm .....	January 7
First Day of Class.....	January 8
End of Drop/Add.....	January 13
Martin Luther King, Jr. Holiday .....	January 18
Tuition Refund.....	January 21
Last Day to Receive Non-Punitive Grade of "W" .....	February 11
MTCC Fire and Rescue College .....	March 17 - 20
Good Friday Holiday Observed .....	March 25
Spring Break, Work/Annual Leave Days .....	March 28 – April 1
SGA Spring Fling .....	April 19
Registration for Summer Semester Begins .....	April 11
Registration for Summer Semester Ends .....	April 22
Last Day of Classes .....	May 9
Final Grades/Attendance Due @ 10 AM .....	May 11

## SUMMER SEMESTER, 2016

Financial Aid Early Registration/Payment .....	May 11
Late Registration .....	May 12
Faculty Association Meeting @ 2:00 pm .....	May 13
First Day of Class.....	May 16
End of Drop/Add.....	May 18
Tuition Refund Request Deadline .....	May 25
Memorial Day Holiday.....	May 30
Last Day to Receive Non-Punitive Grade of "W" .....	June 6
SGA Summer Splash .....	June 7
Independence Day Holiday. ....	July 4
Work Days/Annual Leave Days (No Classes).....	July 5-8
Last Day of Class for Summer Semester .....	August 1
Final Grades/Attendance Due @ 10:00 AM .....	August 3
Graduation .....	August 5



FALL SEMESTER, 2016

All full-time faculty back on campus .....	August 1
Registration for Fall Semester Begins .....	August 3
Financial Aid Early Registration/Payment .....	August 9
Late Registration .....	August 10
Faculty Association Meeting @ 2:00 pm.....	August 11
Staff Development for Faculty and Staff .....	August 11
New Student Orientation .....	August 12
First Day of Class .....	August 15
End Drop/Add .....	August 17
Tuition Refund Request Deadline .....	August 24
Labor Day Holiday .....	September 5
Workday/Annual Leave Day (No Classes).....	September 6
Last Day to Receive Non-Punitive Grade of "W" .....	September 19
SGA Fall Festival .....	October 25
Veterans Day Holiday Observed .....	November 11
Registration for Spring Semester Begins .....	November 7
Registration for Spring Semester Ends .....	November 18
Work/Annual Leave Day (No Classes) .....	November 23
Thanksgiving Holidays (Campus Closed) .....	November 24-25
Last Day of Classes. ....	December 9
Final Grades/Attendance Due @ 10:00 am .....	December 13
Campus Closed .....	December 19 - 23
Christmas Holidays .....	December 26
Campus Closed .....	December 27 - 30

Developmental Studies Calendar

FALL SEMESTER, 2015

First Day of Class 1 <sup>st</sup> 4-weeks	August 24
Last Day of Class 1 <sup>st</sup> 4-weeks	September 17
First Day of Class 2 <sup>nd</sup> 4-weeks	September 21
Last Day of Class 2 <sup>nd</sup> 4-weeks	October 15
First Day of Class 3 <sup>rd</sup> 4-weeks	October 19
Last Day of Class 3 <sup>rd</sup> 4-weeks	November 12
First Day of Class 4 <sup>th</sup> 4-weeks	November 16
Last Day of Class 4 <sup>th</sup> 4-weeks	December 15

Beginning of Class for 1 <sup>st</sup> 8-weeks	August 24
End of Class 1 <sup>st</sup> 8 weeks	October 15
Beginning of Class for 2 <sup>nd</sup> 8 weeks	October 19
End of Class 2 <sup>nd</sup> 8-weeks	December 15

SPRING SEMESTER, 2016

First Day of Class 1 <sup>st</sup> 4-weeks	January 11
Last Day of Class 1 <sup>st</sup> 4-weeks	February 4
First Day of Class 2 <sup>nd</sup> 4-weeks	February 8
Last Day of Class 2 <sup>nd</sup> 4-weeks	March 3
First Day of Class 3 <sup>rd</sup> 4-weeks	March 7
Last Day of Class 3 <sup>rd</sup> 4-weeks	April 7
First Day of Class 4 <sup>th</sup> 4-weeks	April 11
Last Day of Class 4 <sup>th</sup> 4-weeks	May 5

Beginning of Class for 1 <sup>st</sup> 8-weeks	January 11
End of Class for 1 <sup>st</sup> 8 weeks	March 3
Beginning of Class for 2 <sup>nd</sup> 8 Weeks	March7
End of Class for 2 <sup>nd</sup> 8 Weeks	May 5

SUMMER SEMESTER, 2016

First Day of Class 1 <sup>st</sup> 4-weeks	May 16
Last Day of Class 1 <sup>st</sup> 4-weeks	June 9
First Day of Class 2 <sup>nd</sup> 4-weeks	June 13
Last Day of Class 2 <sup>nd</sup> 4-weeks	July 14
Beginning of Class for 1 <sup>st</sup> 8-weeks	May 16
End of Class for 1 <sup>st</sup> 8 weeks	July 14

FALL SEMESTER, 2016

First Day of Class 1 <sup>st</sup> 4-weeks	August 15
Last Day of Class 1 <sup>st</sup> 4-weeks	September 8
First Day of Class 2 <sup>nd</sup> 4-weeks	September 12
Last Day of Class 2 <sup>nd</sup> 4-weeks	October 6
First Day of Class 3 <sup>rd</sup> 4-weeks	October 10
Last Day of Class 3 <sup>rd</sup> 4-weeks	November 3
First Day of Class 4 <sup>th</sup> 4-weeks	November 7
Last Day of Class 4 <sup>th</sup> 4-weeks	December 8

Beginning of Class for 1 <sup>st</sup> 8 weeks	August 15
End of Class for 1 <sup>st</sup> 8 weeks	October 6
Beginning of Class for of 2 <sup>nd</sup> 8 weeks	October 10
End of Class for 2 <sup>nd</sup> 8 weeks	December 8

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# MTCC HISTORY

## 1964

McDowell Technical Community College was established as the Marion-McDowell Industrial Education Center, located in downtown Marion, N.C. near the corner of State Street and South Garden Street. M-MIEC operated as a satellite unit of Asheville-Buncombe Technical Institute until September, 1967.

## 1967

M-MIEC became an independent unit of the Department of Community Colleges. The first Board of Trustees was sworn in, giving more local autonomy.

## 1970

The school moved to permanent facilities on a 31-acre site at the intersection of Interstate 40 and Highway 226 in Marion.

## 1971

The N.C. General Assembly made it possible for the school to become an independent institution. The College was officially chartered as McDowell Technical Institute.

## 1975

A new building expansion program was completed, adding 39,322 square feet to the existing campus. Expansion included a new Auto Mechanics shop, 500-seat Amphitheatre, Learning Resource Center, Teaching Auditorium (seating 220), permanent administrative offices, classrooms and an expanded Student Commons area.

## 1977

McDowell Technical Institute Foundation, Inc. was created to enrich resource development and enhance the quality of college life by procurement of gifts from the private sector.

## 1979

The N.C. General Assembly enacted a bill to change the school's name to McDowell Technical College.

## 1984

Robert M. Boggs succeeded John A. Price as President, becoming the College's second

Chief Administrator. The College undertook a major bond campaign, which resulted in \$2,400,000 for the addition of new facilities.

## 1987

Construction was completed on the Industrial Skills Center, a 32,000 square foot class/lab facility, housing special industrial skills training facilities and class/lab areas for technical and vocational programs.

The Day Care/Classroom building was completed, housing a day care area for children of MTCC students, Continuing Education classrooms/offices, an auditorium and faculty offices. The new facility added 11,200-square feet to existing campus facilities.

## 1988

McDowell Technical College changed its name to McDowell Technical Community College to more accurately reflect the comprehensive educational opportunities available to the citizens of McDowell County.

The MTCC Small Business Center was funded and established to provide educational opportunities and financial assistance to small businesses in the county.

## 1989

The MTCC Career Center was established, providing students with information and help in choosing careers.

The MTCC Downtown Center, located in downtown Marion at the original site of the Marion-McDowell Industrial Education Center, was established to offer Continuing Education classes.

## 1990

MTCC, in conjunction with Isothermal and Cleveland Community Colleges, established the Foothills Nursing Consortium to begin offering an Associate Degree Nursing Program in 1991.

## **1996**

MTCC's North Carolina Information Highway Room was certified and became operational, offering conferences and classes via live interactive video and sound.

## **1997**

The MTCC Downtown Center moved to its new location at 35 South Main Street in Marion, where the McDowell County Schools Accelerated Learning Center and the McDowell County JobLink Career Center were also located.

Construction was completed on a new 19,950 square foot classroom building, the Library was renovated and a new handicapped lift was installed in the Administrative Building. 1,000 square foot was added to the college bookstore.

## **1999**

Dr. Robert Boggs retired after 15 years of service to the College. Dr. H. Edwin Beam became Interim President and the Board of Trustees began the search for a new President.

Today, McDowell Technical Community College offers Associate Degrees, Diplomas, and/or Certificates in more than 30 curriculum programs. The College also offers classes in many areas of Continuing Education. MTCC currently serves more than 6,800 students per year with some type of education and training.

## **2000**

Dr. Virginia R. Mitchell became third president of the College. Instructor Jan Alms designed the first College Seal, which was incorporated into the College's Presidential Medallion, vested upon Dr. Mitchell during inaugural ceremonies in May.

## **2004**

Dr. Bryan W. Wilson succeeded Dr. Virginia R. Mitchell as president of the College after she retired in December, 2003.

## **2005**

Mr. Ford Miller, local businessman, made the largest private donation the college had ever received when he gave MTCC the former Marion Mills Office Building on Baldwin Avenue. Trustees named the building The Ford Miller Employment and Training Complex. Plans were begun to convert the building to a combination office and classroom building to house MTCC staff and students, the McDowell County JobLink Career Center and associated partners, and the McDowell County Employment Security Commission.

## **2008**

The W. Harold Smith Building was completed and named for Harold Smith, a local businessman who left his estate to further educational opportunities for young adults from McDowell County. A trust established in his name has donated over \$825,000 to the college during the last decade, including well in excess of \$100,000 for this building. Scholarships from this trust have also benefited individual students attending curriculum classes at the college.

## **2009**

The Ford Miller Employment and Training Center was completed and began operations in late September of this year.

## **2010**

The Academic Resource Center (ARC) opened on the upper level of the Library adjacent to the Student Enrichment Center to offer students tutoring, computer access, instructional support, test proctoring and a variety of other academic resources. Printers and study tables are also available.

## **2014**

Dr. Bryan W. Wilson, President, and the Board of Trustees, in conjunction with the McDowell County Board of Commissioners, dedicated the Universal Advanced Manufacturing Center (UAMC), providing new and enlarged classrooms and shop areas for Machining, Electrical/Electronics, Welding, Industry Training and related programs.

# GENERAL INFORMATION

## *Accreditation*

McDowell Technical Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4500) to award certificates, diplomas, and associate degrees.

## *Mission and Goals*

### **Preamble**

McDowell Technical Community College in Marion, North Carolina, is situated in the foothills of the beautiful Blue Ridge Mountains and is located 32 miles east of Asheville near the intersection of Interstate 40 and NC Highway 226 South.

Established in 1964, MTCC began as the Marion-McDowell Industrial Education Center near downtown Marion, and operated as a satellite unit of Asheville-Buncombe Technical Institute until 1967. The college moved to its current 31 acre site in 1970 and was officially chartered in 1971 as McDowell Technical Institute. In 1979, the college's name was changed to McDowell Technical College and in 1988 to the current McDowell Technical Community College. Although the name has changed, the process of lifelong learning has remained as its primary focus.

### **Mission Statement**

McDowell Technical Community College is a member of the North Carolina Community College System, dedicated to providing student-centered accessible, high-quality educational opportunities and services which fulfill the personal development, training and employment needs of the residents, businesses, and industries of McDowell County and the surrounding areas through an open-door admissions policy.

The college recognizes each person's right to an education and seeks to contribute to the maximum development of a globally and culturally diverse workforce and improve the quality of life of the individuals in our community.

The college provides life-long learning opportunities by:

- Offering comprehensive academic transfer, professional/technical, developmental, basic skills and continuing education programs through traditional and non-traditional delivery methods;
- Providing comprehensive student support services;
- Interacting and assisting with others to encourage, promote and facilitate economic growth and community development;
- Recruiting, retaining and developing a highly qualified and diverse faculty and staff who are dedicated to quality education and service to the college and the community;
- Enhancing student life by sponsoring a variety of educational, cultural, and community services and activities.

## ***Graduate Competencies***

McDowell Technical Community College strives to prepare graduates to:

1. Listen and communicate effectively, orally and in writing.
2. Demonstrate competence in reading.
3. Perform effectively in their chosen occupations.
4. Demonstrate positive interpersonal life skills.
5. Demonstrate quantitative competencies.
6. Demonstrate skills in using a personal computer.
7. Use information to analyze problems and make logical decisions.

## ***General Responsibilities***

Students are expected to acquaint themselves with and observe College regulations and policies contained in the *Catalog and Student Handbook* and all announcements made by administrative officials.

## ***Academic Year***

McDowell Technical Community College operates on the semester system (Fall, Spring and Summer).

Classes are regularly scheduled Monday through Friday for the day and evening curriculum classes. Weekend curriculum classes may also be offered on an occasional basis. Holidays, days for registration, and the first and last days for classes in each semester are indicated on the academic calendar.

## ***Hours of Operation***

In general, the College will offer day and night curriculum classes in technical, vocational, general education and college transfer programs from approximately 8:00 am to 10:30 pm Monday through Friday. Occasionally, classes will begin or end an hour earlier or later than these parameters. Weekend and summer semester classes may vary from this schedule.

The administrative offices of the College are open 8:00 am to 5:00 pm Monday through Thursday, and 8:00 am to 4:30 pm Friday.

The Switchboard is open from 8:00 am to 10:00 pm Monday through Thursday and 8:00 am to 4:30 pm on Friday.

The Academic Resource Center is open from 8:00 am to 9:00 pm Monday through Thursday and 8:00 am to 4:00 pm on Friday.

The Library is open from 8:00 am to 9:00 pm Monday through Thursday and 8:00 am to 4:00 pm on Friday.

Continuing Education classes will be offered across campus and throughout the community at varying times throughout the week. Consult the Schedule of Classes for Continuing Education class times.

Hours of operation for the annual Fire and Rescue College will be mailed to applicants several weeks prior to the event.

## ***Closing of School For Bad Weather***

At times, McDowell Technical Community College curriculum and/or continuing education classes may be delayed or canceled due to inclement weather, natural disaster, or other emergency. The President is responsible for making the decision of whether to delay or cancel classes and for communicating this decision to the Director of External Relations for communication to the news media and to the college switchboard.

When it becomes necessary to discontinue or delay classes, an announcement will be made to local and regional radio and television stations. Morning announcements will be made about 6:15 am for day classes. All day classes will operate according to the announcement and will either be canceled for the day or begin at 10:00 am.

Should it become necessary to change from the delayed class schedule to class cancellation, the stations will be notified by 8:00 am.

Announcements concerning evening classes will be made over the same stations during the afternoon, hopefully by 3:00 pm. There is no abbreviated schedule for evening classes.

Students may call the college if they cannot receive one of the radio or television stations listed. If the college is closed, students may access a recorded closing/delay message by calling the College at 659-0419. Announcements will also be listed on Facebook and at [www.mcdowelltech.edu](http://www.mcdowelltech.edu).

Students, faculty and staff may also sign up for text alerts from the College to receive inclement weather announcements. Log onto the MTCC website at [www.mcdowelltech.edu](http://www.mcdowelltech.edu) and visit the section labeled "McDowell Tech Text Alerts" to sign up.

During inclement weather, students and staff members may listen to these stations for news about school delays or class cancellation:

<b>Radio</b>	<b>Television</b>
WWNC (570 AM) Asheville	WLOS (Ch. 13, Asheville)
WBRM (1250 AM) Marion	WBTV (Channel 3, Charlotte)
WTOE (1470 AM) Spruce Pine	WSOC (Ch. 9, Charlotte)
WNCW (88.7 FM) Spindale	WYFF (Ch. 4, Greenville)
WMNC (92.1 FM) Morganton	WSPA (Ch. 7, Spartanburg)
WKSF (99.9 FM) Asheville	
WQNQ (104.3 FM), Asheville/Old Fort	

*Class makeup:* The college recognizes its obligation to deliver the instructional services for which students pay tuition and fees. For this reason, all missed classes should be re-scheduled or made up in a manner determined by the Vice-President for Learning and Student Services. The final attendance report must document how cancelled classes were made up.

## ***Housing***

McDowell Technical Community College is a commuter institution and does not provide living accommodations for students. However, if a student desires to live in the community while attending classes, the Student Services Office will refer him/her to appropriate resources for assistance in locating suitable housing.

## ***Parking***

Parking facilities are available for students, visitors, staff and faculty. Handicapped parking facilities are available and are appropriately designated across campus. Students are required to purchase a parking permit at a cost of \$5 each semester they attend. These passes should be displayed in a prominent area on the windshield of the vehicle. Faculty and staff are also required to have a parking permit in order for their vehicles to park in the designated staff parking areas. Unauthorized vehicles will be towed away at the owner's expense.

## ***Food Services***

A short order café is located in the Student Commons. The café serves breakfast, lunch, and dinner Monday through Thursday, and breakfast and lunch on Fridays. The cafe may be closed on certain occasions when the college is holding special events in the Student Commons or when class is not in session. Snacks and soft drinks may also be purchased from vending machines in the Student Commons.

## ***Library Services***

Library Services encompasses the Library and audiovisual materials and equipment. Library staff members are available to help students and faculty as well as members of the community with library needs. The MTCC library hours are posted on the library entrance. The MTCC library can be accessed through the MTCC website by clicking on the "Library" tab on the left.

A wide range of library resources is available to support the curriculum programs of the College. The book collection includes more than 28,780 volumes of current reference materials, college transfer, technical and vocational materials and an extensive paperback collection. Approximately 100 periodical and newspapers are received throughout the year. Patrons are welcome to recommend materials for purchase.

Audiovisual materials are available for classroom instruction. Audiovisual equipment is maintained in most of the classrooms on campus. The online card catalog (SirsiDynix iLink) provides easy access to Library materials and makes the check-out process smooth, quick and accurate.

Additional library resources include Interlibrary Loan through online Computer Library Center (OCLC) and Community College Libraries in North Carolina (CCLINC). Online databases include SIRS Researcher, Renaissance

and Government Reporter; and Facts on File: Issues & Controversies and Bloom's Online Literary Reference. Computers are available for Internet research, including NC LIVE. Through its databases, NC LIVE provides access to full-text articles from over 29,700 magazines and newspapers from its 17 vendors. It also provides access to over 31,000 electronic books, as well as over 3,400 videos and audio books. Remote access to the NC LIVE, SIRS, & FOF databases is available to online students through Blackboard. Other students need a library card to get the passwords/urls for the databases. A library card is needed by all library patrons to use the computers in the library and to check out library materials.

### ***Use of Telephones***

Students will not be called out of class to receive personal calls except in the case of an emergency.

### ***Cell Phones and Beepers***

Cellular telephones, beepers, two-way radios and similar devices may cause distraction and/or disruption of the learning environment. Students are to keep all such devices turned off during class and while in the MTCC Library. Students with extenuating circumstances must seek permission of the individual instructor or library staff member to have such devices turned on in these locations.

### ***Technology***

McDowell Technical Community College maintains multiple computer labs for instructional purposes in curriculum areas such as Accounting, Advertising & Graphic Design, Business Administration, Computer Information Technology, Health Information Technology, Nursing, Office Systems, Photography and Web Technology. The Graphic Design and Photography labs utilize Macintosh computers with associated software while other labs contain PC workstations running Microsoft Windows with associated software. Printing is also available in labs for instructional purposes.

The Academic Resource Center (ARC) is an open lab available for student use. It is located just above the library in Cedar Building.

Wi-Fi is available across campus for guest use. No login is necessary, but users must read and accept the campus policy to access the internet. Violation of this policy could result in revocation of computer use privileges on campus.

### ***Children On Campus***

It is College policy that children may not accompany students to class. Children who are brought to campus for other reasons must be closely supervised by a responsible adult and may be asked to leave if they become disruptive. Children enrolled in the MTCC Child Development Center are allowed on campus when supervised by College staff.



### ***Noise***

The McDowell Technical Community College Child Development Center is a 5-star center providing quality care for children 6 weeks to 5 years of age. We provide care during the day with full-time or part-time slots to students, MTCC/MEC faculty & staff and the community. The Center is open as follows from 7:30 am to 5:30 pm Monday through Thursday, and from 7:30 am to 4:30 pm on Friday. Financial assistance is available to qualifying applicants. For additional information, fee schedules and application materials, please contact MTCC Child Development Center at 828-652-0637.

### ***Dress***

Students are to exercise judgment in dressing appropriately for classes or laboratory work. Students in certain curriculum programs may be required to wear particular items of clothing for safety and/or designation of their course of study. Refer to the Student-Oriented Policies and Procedures section of the Catalog for more details.

### ***Noise***

Students are to be considerate of classes which are in session. Excessive noise will not be tolerated within administrative or classroom buildings.

### ***Smoking Facilities***

Beginning January 1, 2016, MTCC will be a tobacco-free campus.

### ***Bulletin Boards***

Students may post notices on bulletin boards subject to the approval of the Student Government Advisor in the Student Services Office.

### ***Lost and Found***

All lost or found items should be reported to the switchboard operator at the information desk in Building 11 (Cedar) 828-652-6021. The Switchboard Operator will post information on items which have been turned in.

# McDowell Technical Community College

## Performance Measures and Standards for Performance Funding

Last revised July 2015 from the 2015 Performance Measures for Student Success report by NCCCS.

Measures A, B, C, D, E, F, G, and H are required for performance funding.

An asterisk “\*” indicates that number is too small to report without violating students’ privacy. A minimum of 5 students is required for a reportable sample size

Measure	Description	Standard(s)	System Average Performance	MTCC Performance
<b>A. Basic Skills Student Progress</b>	Percentage of students who progress as defined by an educational functioning level (Adult Secondary Education High).	Goal: 51.2% Baseline: 20.6%	44.8%	42.4%
<b>B. GED Diploma Passing Rate</b>	Percentage of students taking one GED test during a program year who receive a GED diploma during the program year.	Goal: 82.0% Baseline: 49.3%	78.2%	87.5%
<b>C. Developmental Student Success Rate in College-Level English Courses</b>	Percentage of previous developmental English and/or reading students who successfully complete a credit English course with a grade of “P”, “C” or better upon the first attempt.	Goal: 74.9% Baseline: 45.2%	63.4%	62.2%
<b>D. Developmental Student Success Rate in College-Level Math Courses</b>	Percentage of previous developmental math students who successfully complete a credit math course with a “C” or better upon first attempt.	Goal: 75.4% Baseline: 47.5%	63.0%	72.7%
<b>E. First Year Progression</b>	Percentage of first-time fall credential-seeking students attempting at least twelve hours within their first academic year who successfully complete (“P”, “C” or better) at least twelve of those hours.	Goal: 74.6% Baseline: 53.2%	67.1%	66.7%
<b>F. Curriculum Completion</b>	Percentage of first-time fall credential-seeking students who graduate, transfer, or are still enrolled with 36 hours after six years.	Goal: 45.6% Baseline: 28.6%	42.9%	29% Graduated 8% Transfer, Not Graduate 4% Retained, Not Graduate or Transfer 40.5% Graduate, Transfer, or Retained
<b>G. Licensure and Certification Passing Rate</b>	Aggregate institutional passing rate of first time test-takers on licensure and certification exams. Exams included in this measure are state mandated exams which candidates must pass before becoming active practitioners.	Goal: 91.7% Baseline: 71.0%	84.6% Aggregate  BLET 82% Cosmetology: 94% Apprentice Cosmet 93% Esthetics 93% Instructor 78%	89.5% Aggregate  BLET 89% Cosmetology: (*) Apprentice Cosmet 88% Esthetics 100% Instructor (*)

Measure	Description	Standard(s)	System Average Performance	MTCC Performance
			Manicurist 79% Pract. Nursing 93% Reg. Nursing 87% EMT 78% EMT-I 70% EMT-P 91%	Manicurist (*) Pract. Nursing 97% Reg. Nursing 83% EMT 80% EMT-I (*) EMT-P 60%
<b>H. College Transfer Performance</b>	Among community college associate degree completers and those who have completed 30 or more credit hours who transfer to a four-year university or colleges, the percentage who earn a GPA of 2.00 or better after two consecutive semesters within the academic year at the transfer institution.	Goal: 93.8% Baseline: 71.2%	88.3%	83.9%

**College Summary:**

One performance measure was met, Measure B – GED Passing Rate. Two performance measures were Above the College Average, but Below the Excellence Level and five performance measures were Above the Baseline, Below the Mean.

**Note:** A representative committee of academic, finance, research, and student service expertise in the North Carolina Community College System, referred to as the Performance Measures Committee, was appointed in 2010 to develop new measures. During the timeframe of this committee's work, the 2011 Session of the General Assembly directed the State board of Community Colleges to report on a revised set of accountability measures and performance standards. The General Assembly also directed that the report include a plan to merge revised accountability measures and performance standards into the regular "State Aid Allocation Formula." This 2011 legislative directive was timely, as it reflected the direction established by the State Board, System Office, and leaders of the community college associations in 2009 and 2010. After approximately one year of work, including the examination of multiple national initiatives focused on developing credible measures of accountability, the Performance Measures Committee, chaired by two community college presidents, brought forward eight new performance measures for consideration. Those measures were adopted by the State Board of Community Colleges in November 2011, reported to the Joint Legislative Education Oversight Committee in March 2012, and enacted into law by the General Assembly in June 2012. Those new measures are A-H in the above chart.

# DEGREES, DIPLOMAS & CERTIFICATES

McDowell Technical Community College awards the  
***ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)***  
upon the successful completion of the following technical curricula:

- Accounting
- Advertising and Graphic Design
  - Associate Degree Nursing
- Automotive Systems Technology
- Business Administration-Concentrations Available In:
  - Marketing and Retailing
  - Operations Management
- Computer Information Technology
- Computer Integrated Machining
  - Cosmetology
- Early Childhood Education
- Electrical Systems Technology
- General Occupational Technology
- Health Information Technology
- Industrial Systems Technology
  - Office Administration
- Photographic Technology
- School-Age Education
- Web Technologies

The College awards the  
***ASSOCIATE IN ARTS DEGREE (A.A.)***  
upon the successful completion of the following College Transfer Curriculum:

- College Transfer - Liberal Arts Program

The College awards the  
***ASSOCIATE IN SCIENCE DEGREE (A.S.)***  
upon the successful completion of the following College Transfer Curriculum:

- College Transfer - Science Program

The College awards the  
***ASSOCIATE IN GENERAL EDUCATION (A.G.E.)***  
upon the successful completion of the following:

- General Education

The College awards  
***DIPLOMAS***  
upon the successful completion of the following vocational curricula:

- Advertising and Graphic Design
- Air Conditioning, Heating and Refrigeration Technology
  - Automotive Systems Technology
  - Carpentry
- Collision Repair and Refinishing Technology
- Computer Integrated Machining
  - Cosmetology
- Early Childhood Education

- Electrical/Electronics Technology
- Health Sciences Therapeutic and Diagnostic Services
- Health Information Technology- Medical Coding
  - Industrial Systems Technology
    - Networking Technology
    - Office Administration
- Office Administration-Medical Transcription
  - Practical Nursing Education
    - School Age Child
    - Surgical Technology
      - Web Technology
    - Welding Technology

The College awards

***CERTIFICATES***

upon the successful completion of the following curricula:

- Accounting- Accounts Payable, Accounts Receivable, Bookkeeping
  - Accounting- Payroll Accounting Clerk
  - Accounting- Income Tax Preparer
  - Advertising and Graphic Design
  - Automotive Systems Technology
  - Basic Law Enforcement Training
    - Carpentry
  - Collision Repair and Refinishing Technology
    - Collision Repair: Structural Damage
    - Computer Information Technology
    - Cosmetology-Esthetics Instructor
  - Cosmetology - Esthetics Technology
    - Cosmetology-Instructor
  - Cosmetology - Manicuring Instructor
  - Cosmetology - Manicuring / Nail Technology
    - Dialysis Technology
    - Early Childhood Education
  - Early Childhood Education-Infant Toddler Care
    - Early Childhood-Special Education
      - Health Informatics
  - Health Information Technology-Health Care Informatics
    - Health Information Technology- Billing and Coding
  - Health Information Technology- Release of Information
    - Industrial Systems Technology
      - Nurse Aide
      - Office Administration
    - Photographic Technology
      - School Age Child
      - Web Technology
    - Welding Technology

The College awards

***CERTIFICATES OF COURSE COMPLETION***

upon successful completion of non-credit Continuing Education courses.

The North Carolina Department of Public Instruction awards  
***ADULT HIGH SCHOOL EQUIVALENCY CERTIFICATES***  
 to individuals who make satisfactory scores on  
 General Educational Development (GED) examinations.

# ADMISSIONS

As a member of the North Carolina Community College System, McDowell Technical Community College operates under an “open door” admissions policy. Open door admissions means, “Any person who is a high school graduate or at least 18 years old has the opportunity to pursue the various educational opportunities that are offered by institutions in the system.” Special admission requirements, such as educational qualifications, physical abilities, assessment scores and State Board policy restrictions, are attached to certain curriculums. Applicants scoring below specified minimums on entrance exams will be counseled and required to enroll in classes designed to eliminate their admission deficiencies.

The following are the general admission requirements. However, some curricula have special requirements for admission. Consult the section of this catalog which describes the particular curriculum in which you wish to enroll for a list of the exceptions or requirements.

The College has seven departments:

**Business Technologies Department**  
**College Transfer / General Education Department**  
**Continuing Education Department**  
**Correctional Education Department**  
**Health Science Department**  
**Human & Public Services Department**  
**Vocational Department**

## ***Curriculum Admissions***

Curriculum classes are offered in all departments except the Continuing Education Department. Therefore, admission to all departments except the Continuing Education Department are coordinated through and conducted in the Student Services Office. For curriculum admissions, an applicant must be a graduate of an accredited high school or must have been awarded a high school equivalency certificate. Exceptions may be made for Career and College Promise students, as well as individuals whose age and maturity make success likely.

## ***Continuing Education Admissions***

In general, Continuing Education courses are open for enrollment to persons 18 years of age or older, or those whose high school graduating class has graduated. However, because some specialty and advanced courses may be more difficult and require a greater degree of preparation, potential enrollees should be aware of the nature of the course requirements to determine their possible success in those courses.

To meet admissions requirements for certain specialized courses such as Fire Service, Law Enforcement or Management Development Training, potential students must be employed by or recommended by one of the requesting training agencies.

### ***How to Enroll in a Curriculum Program***

Persons wishing to enroll in a **curriculum program** at the College must complete the entire application process and meet requirements as follows:

- Submit an application form, health form (depending upon program area) and residency statement. **There is no application fee!**
- Obtain official transcripts of credits from all secondary and post-secondary schools attended. Records should show that the student is a high school graduate or has a state-approved equivalent education.
- Complete admission and placement tests administered by the College through the Student Enrichment Center. Student suitability for admission to individual programs will be determined by scores on the placement exam and specific program requirements. Applicants scoring below the necessary minimum will be required to enroll in various developmental (remediation) courses to ensure success in their curricula.
- The Vice President for Learning and Student Services will review all requests for placement test exemption. Students classified as transfer or special students may be considered for such exemptions, as may those with satisfactory scores on the ACT or SAT, and those who have satisfactorily completed college level English or Algebra with appropriate grades.

*\*\*For information on admission to Continuing Education courses, refer to the Continuing Education section of this catalog.*

## ***Special Admissions***

### ***Provisional Admissions***

Students who have applied too late to secure all supporting documents for admission to a particular semester may be admitted as provisional students. In such cases, all requirements for regular admission should be completed within the first semester of attendance.

Students who fail to secure all supporting documents or satisfy requirements for official admission to the College may not be eligible for financial assistance and will not be allowed to enroll the next semester.

### ***Admission of Special Students***

A special student is defined as one who is enrolled in curriculum credit courses, but who is not working toward a degree or diploma. Special students may register to take courses for which they have met prerequisites, provided that such registration does not pre-empt students enrolled in a degree, diploma, or certificate program.

A student may take a maximum of 15 hours in any one semester

while classified as a special student. When a student reaches 20 cumulative hours, he/she will be counseled to declare a major or curriculum preference.

For admission to McDowell Technical Community College, special students need only to complete the application for admission which is available in the Student Services Office. Special students may be asked to submit proof of high school graduation and meet certain placement criteria, depending on the courses they wish to enroll in. If they desire to be reclassified as a regular student with intent to pursue and earn a degree, diploma, or certificate at McDowell Technical Community College, they must meet the admission criteria of their chosen program of study.

### ***Visiting Student Status***

A visiting student is defined as one who is a student in good standing at another institution of higher education. A visiting student may enroll at MTCC by completing an application and furnishing MTCC with a letter of permission and transcripts from the parent college (college at which the individual is a regular student).

Visiting students may register to take courses for which they have met prerequisites, provided that such registration does not pre-empt students enrolled in a degree, diploma, or certificate program.

### ***Foreign Student Admission***

A student wishing to apply for admission as a foreign student (F1-VISA) should first make arrangements through the American Consulate in his/her own country to take the Test of English as a Foreign Language (TOEFL Test). To demonstrate proficiency in the English language, international applicants from non-English speaking countries must score at least 133 on the computer-based test or a 450 on the paper-based test. If the applicant is already in the Marion area, the MTCC placement test may be substituted for the TOEFL requirement. Applicants will not be considered until a satisfactory score is received on this exam.

Educational records, including transcripts, must be translated into the English language by officials from the school(s) from which the applicant graduated. These records must contain course titles, grades and an explanation of the marking system.

Foreign applicants must submit an official certification that adequate funds are at the applicant's disposal to meet education and living expenses, including transportation, housing, insurance, out-of-state tuition, etc.

The MTCC Application for Admission, high school transcript, college transcripts, TOEFL or MTCC placement test scores and official documentation of financial resources must be received before an admission decision can be made and a U.S. Immigration and Naturalization Service I-20 can be issued.

Undocumented immigrants are required to pay out-of-state tuition and are subject to the rules and regulations for undocumented students.



**Foreign applicants must meet all other regular admission requirements as stated in this catalog.**

### ***Admission of Minors***

“An applicant who is a minor between the age of 16 and 18 may be considered as a person with special needs and admitted to appropriate courses or programs, provided:

1) That the minor applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the semester in the institution for which admission is sought; and

2) That the application of such minor is supported by a notarized petition of the minor’s parent, legal guardian, or other person or agency having legal custody and control of such minor applicant, which petition certifies the place of residence and date of birth of the minor, the parental or other appropriate legal relationship of the petitioner to the minor applicant, and the date on which the minor applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

3) That such admission will not pre-empt College facilities and staff to such an extent as to render the College unable to admit all applicants who have graduated from high school or who are 18 years of age or older.

It shall be the policy of the State Board of Education and the Community College System to encourage young people to complete high school before seeking admission to community colleges or technical institutes.”

### ***McDowell Early College***

McDowell Early College (MEC) is a small, personalized high school located on the McDowell Technical Community College Campus. MEC is an exciting partnership between McDowell County Schools and McDowell Technical Community College that offers unique educational opportunities designed for a diverse group of students. The mission of MEC is to provide a smaller academic environment that fosters growth and success to prepare students for their future by developing relationships, responsibility, and respect through relevant and rigorous coursework.

McDowell Early College students earn an Associate’s degree or two years of transferable credit in addition to their high school diploma. All MEC students are offered a schedule that meets individual needs, abilities and interests. The school, provides ongoing academic support in a small school setting to help students meet the high expectations of the Early College Model. Our focus is college readiness. McDowell Early College strives to redefine teaching and learning by using innovative best practices.

For more information, contact the MEC principal at 659-0411.

## ***Enrollment Limitations***

Some curriculum programs have maximum student enrollment limitations and/or reserve space for currently enrolled students. Acceptance to most programs except Nursing, Surgical Technology and BLET will be on a first come, first served basis as evidenced by the receipt of qualified applications and payment of all appropriate fees.

Applicants who do not register and pay at established times may lose their position.

## ***Readmissions***

Students who have withdrawn in good standing, withdrawn while on probation, or who have been suspended for academic deficiencies should submit requests for readmission to the VP for Learning and Student Services. Consideration of requests for readmission of students who have withdrawn for these reasons will be made in light of the applicant's ability, evidence of growth and maturity, time elapsed since withdrawing and other extenuating circumstances. Additional consideration will be given to those who have completed course pre-requisites. Enrollment limits and class sequencing will also be considered in evaluating a request for readmission.

## ***Transfer***

### ***Transfer From Other Schools***

Students who complete course work in another accredited college or university may apply for admission to MTCC. An application must be submitted and must include official transcripts for all institutions previously attended. Transfer applicants must have maintained a "satisfactory conduct" standing in the institution from which they are transferring to be accepted as a student in good standing at MTCC.

Academic work completed at accredited colleges and universities will be accepted at full value for required courses passed with the grade of "C" or better if completed within the last 10 years. Courses taken at other institutions must have essentially the same content, contact hours and difficulty level as MTCC courses.

In order to receive a degree or diploma from MTCC, a student must earn the last 20 semester hours of their program in residence at MTCC with at least a "C" average (see graduation requirements).

Applicants who seek admission with advanced standing at MTCC should make an appointment with an admissions counselor to conduct a transcript evaluation. The admissions officer will conduct an official transcript evaluation when the applicant's admission file is complete. Requests for transfer credit should be made prior to the student's first term of enrollment. All transfer credit will be computed by the end of the first semester of the student's initial enrollment. The applicant can inquire in Student Services about all credits which transfer, preferably prior to enrollment.

A transfer student applying too late to complete pre-entrance requirements may be admitted as a provisional student. In such a case, all requirements for regular admission must be completed within the first semester of attendance.

A student on academic probation or suspended status from his/her last college or post-secondary institution may be admitted on a probationary basis and may be subject to academic progress regulations as defined in this catalog.

### ***Transfer of Credits from College Level Examination Program***

Credit may be allowed for up to 14 semester hours of college work based on appropriate scores on the CLEP General Examination where appropriate to the student's program of study. CLEP subject examinations are evaluated individually if applicable to the program of study.

### ***Transfer of Credits For Military Experience***

McDowell Technical Community College recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible academic residency requirements and crediting learning from appropriate military training and experience. Veterans of the Armed Forces automatically receive credit for two semester hours of physical education credit. They are eligible to apply for curriculum credit in other areas based on prior education, training and experience. See the Veterans Certifying Official in the Student Enrichment Center for more information on credit for prior military experience.

### ***Transfer Within Curriculums***

McDowell Technical Community College will make all reasonable efforts to assist students who transfer from one curriculum to another within the College. Credits earned in one curriculum will transfer to another when appropriate.

A student's cumulative grade point average will be computed only from the credits transferred to the new curriculum. The Dean of Academic Programs is the primary authority in determining transfer of credits from other schools and within curriculums. When there is doubt about the transfer of a credit, the Dean of Academic Programs will consult the appropriate faculty members. If a student wishes to appeal the decision, the transcript will be referred to the VP for Learning and Student Services, whose decision will be final.

### ***Transfer To Other Schools***

The school to which a student wishes to transfer is responsible for deciding which credits from McDowell Technical Community Col-

lege will be accepted. Most colleges and universities will accept MTCC credit for a course if a grade of “C” or higher is earned. Students planning to transfer to senior institutions should strongly consider enrolling in the MTCC College Transfer or General Education program. Transfer of credits from other areas may be limited. Students should seek the advice of a counselor in these instances.

There are many four-year schools which accept transfer technical courses from McDowell Technical Community College. Students should contact four-year schools of their choice to determine which courses will transfer.

### ***Procedures for Students Desiring a Second Degree***

1. The student desiring a second degree informs his/her advisor of his/her intent to receive two associate degrees prior to applying for graduation in Student Services.
2. The advisor evaluates the student's transcript to determine if additional semester hours/coursework is required.
3. The advisor documents his/her decision on the Dual Degree Approval Form provided by the student by completing the bottom section of the form.
4. The student applies for graduation in Student Services, submitting a separate application for each degree sought.
5. The Director of Admissions confirms that the Dual Degree Form and Student Data Change Form are completed. If not, he/she informs the student that they need to speak with their advisor and/or Veterans' Certifying Official before proceeding if he/she plans to receive VA educational benefits.

### ***False Information***

Furnishing false data for admission or failure to fully disclose requested information will be grounds for rejection of an application or dismissal of a student who has already be admitted to the college.

### ***Notification of Acceptance*** (\*Does not apply to students in Nursing, and Surgical Technology.)

Applicants will be notified by mail of their admission status within one to four weeks after their application is received. Placement into a requested program may be determined at a later date. Official notification of acceptance or placement in a program is issued only by the Vice-President for Learning and Student Services or his/her designee. Applicants not placed in the program of their choice will be notified of this decision. An admissions interview may be requested prior to placement into any program. An applicant who changes his/her mailing address prior to registration for classes, who desires to apply for a different program, or wishes to enroll in a different semester than the one for which he/she originally applied should notify the Student Services Office immediately.

## ***Placement Information***

**(\*Applies to Health Sciences students prior to acceptance into a Health Science Program.)**

Placement into a specific course of study is based upon standards which will help to assure the applicant's success in that course of study. New students seeking a degree, certificate or diploma need to take the COMPASS, Accuplacer, and/or Asset Placement. The test is administered by the Student Enrichment Center under the auspices of the Student Services Office. Those who do not yet possess the background required by their course of study may be enrolled in developmental (refresher) courses designed to provide this background.

An individual's educational background, interest, motivation, experience and aptitude will be considered when an application is submitted to the College.

Students may be required to take developmental classes based on their placement test scores. Students are expected to enroll in developmental courses during their first semester. Students must pass the developmental course(s) with a grade of "C" or better to advance into higher level coursework.

For placement into MAT 271 Calculus I, contact the Student Enrichment Center (659-0148 or 652-0683) for placement options.

# Career and College Promise

*(Approved by State Board of Community Colleges on 10/21/11; revised 03/16/12; revised 07/19/13; revised 11/15/13; revised 03/21/14; revised 07/18/14)*

Session Law 2011-145, the Appropriations Act of 2011, authorized the State Board of Education and the State Board of Community Colleges to establish the Career and College Promise program, effective January 1, 2012.

Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. North Carolina community colleges may offer the following Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education:

1. College Transfer Pathway leading to a minimum of 30 hours of college transfer credit;
2. A Career and Technical Education Pathway leading to a certificate, diploma or degree;
3. A Cooperative Innovative High School Pathway approved under Part 9 of Article 16 of Chapter 115D of the General Statutes.

## **College Transfer Pathway**

1. The Career and College Promise Pathway requires the completion of at least thirty semester hours of transfer courses, including English and mathematics and ACA 122 College Transfer Success
2. To be eligible for enrollment, a high school student must meet the following criteria:
  - a. Be a high school junior or senior;
  - b. Have a weighted GPA of 3.0 on high school courses; and
  - c. Demonstrate college readiness on an assessment or placement test (see attachment A).  
A student must demonstrate college readiness in English, reading and mathematics to be eligible for enrollment in a College Transfer Pathway.
3. A high school junior or senior who does not demonstrate college-readiness on an approved assessment or placement test may be provisionally enrolled in a College Transfer Pathway. To qualify for Provisional Status, a student must meet the following criteria:
  - a. Have a cumulative weighted GPA of 3.5;
  - b. Have completed two years of high school English with a grade of 'C' or higher;
  - c. Have completed high school Algebra II (or a higher level math class) with a grade of 'C' or higher;
  - d. Obtain the written approval of the high school principal or his/her designee; and,
  - e. Obtain the written approval of the community college president or his/her designee.

A Provisional Status student may register only for college mathematics (MAT) and college English (ENG) courses within the chosen Pathway. To be eligible to register for other courses in the Pathway, the student must first successfully complete mathematics and English courses with a grade of 'C' or higher.

4. To maintain eligibility for continued enrollment, a student must
  - a. Continue to make progress toward high school graduation, and
  - b. Maintain a 2.0 GPA in college coursework after completing two courses.
  - c. A student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.
5. A student must enroll in one College Transfer Pathway program of study and may not substitute courses in one program for courses in another.
6. A student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.

7. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student who completes a College Transfer Pathway, while still enrolled in high school, may continue to earn college transfer credits leading to the completion of the Associate in Arts or Associate in Science.
8. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student may enroll in both a College Transfer Pathway program of study and a Career Technical Education program of study.

#### **Career Technical Education Pathway (Juniors and Seniors)**

1. The Career and College Promise Career Technical Education Pathway for juniors and seniors leads to a certificate or diploma aligned with a high school Career Cluster.
2. To be eligible for enrollment, a high school student must meet the following criteria:
  - a. Be a high school junior or senior;
  - b. Have a weighted GPA of 3.0 on high school courses or have the recommendation of the high school principal or his/her designee; and
  - c. Meet the prerequisites for the career pathway.
3. High school counselors should consider students' PLAN scores in making pathway recommendations.
4. College Career Technical Education courses may be used to provide partial or full fulfillment of a four-unit career cluster. Where possible, students should be granted articulated credit based on the local or state North Carolina High School to Community College articulation agreement.
5. To maintain eligibility for continued enrollment, a student must
  - a. Continue to make progress toward high school graduation, and
  - b. Maintain a 2.0 in college coursework after completing two courses.
  - c. A student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.
6. A student must enroll in one program of study and may not substitute courses in one program for courses in another. The student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator. A student may concurrently enroll in two CTE programs of study provided the exception has been approved by the college's Chief Academic Officer or his/her designee.

**Career Technical Education Pathway (Freshmen and Sophomores)**

The Appropriations Act of 2013, S.B. 402, amended NC General Statutes 115D-20(4)a.2 to allow “academic transition pathways for qualified freshmen and sophomore high school students that lead to a career technical education certificate or diploma in industrial and engineering technologies.”

1. The Career and College Promise Career Technical Education Pathway for freshmen and sophomores leads to an industrial or engineering certificate or diploma aligned with a high school Career Cluster.
2. The college may enroll high school freshmen and sophomores only in Industrial Technologies (Program Code 50xxx) and Engineering Technologies (Program Code 40xxx) certificate and diploma programs.
3. To be eligible for enrollment, a high school student must meet the following criteria:
  - a. Be a high school freshman or sophomore;
  - b. A qualified freshmen must:
    - i. have passed Math I with a grade of “C” or better;
    - ii. scored a 3 or 4 on the EOC for Math I;
    - iii. meet the college ready reading score of 16 on the 8<sup>th</sup> grade Explore test;
    - iv. meet prerequisites for the career pathway; and
    - v. have the recommendation of the high school principal or his/her designee (based on assessment of student maturity and ability to effectively participate in a class that may include adult students).
  - c. A qualified sophomore must:
    - i. have passed Math I with a grade of “C” or better;
    - ii. scored a 3 or 4 on the EOC for Math I;
    - iii. meet the college ready reading score of 16 on the 8<sup>th</sup> grade Explore test;
    - iv. have a weighted GPA of 3.0 on high school courses;
    - v. meet prerequisites for the career pathway; and
    - vi. have the recommendation of the high school principal or his/her designee (based on assessment of student maturity and ability to effectively participate in a class that may include adult students).
4. College Career Technical Education courses may be used to provide partial or full fulfillment of a four-unit career cluster. Where possible, students should be granted articulated credit based on the local or state North Carolina High School to Community College articulation agreement.
5. To maintain eligibility for continued enrollment, a student must
  - a. Continue to make progress toward high school graduation, and
  - b. Maintain a 2.0 in college coursework after completing two courses.
  - c. A student who falls below a 2.0 GPA after completing two college courses will be subject to the college’s policy for satisfactory academic progress.
6. A student must enroll in one program of study and may not substitute courses in one program for courses in another. The student may change his or her program of study major to another industrial or engineering program of study with approval of the high school principal or his/her designee and the college’s chief student development administrator. A student may concurrently enroll in two engineering or industrial CTE programs of study provided the exception has been approved by the college’s Chief Academic Officer or his/her designee.



**College Readiness\* Benchmarks on Approved Diagnostic Assessment Tests**

Test	PLAN**	PSAT**	Asset (NCCCS Cut Score)	COMPASS (NCCCS Cut Score)	Accuplacer (NCCCS Cut Score)	NC DAP (NCCCS Cut Score)
<b>English</b>	15	45	41 Writing	70 Writing	86 Sentence Skills	Composite score of 151 or higher ***
<b>Reading</b>	18	47	41 Reading	81 Reading	80 Reading	
<b>Mathematics</b>	19	47	41 Numerical Skills and 41 Int. Algebra	47 Pre-Algebra and 66 Algebra	55 Arithmetic and 75 Elem. Algebra	7 on each assessment for DMA 010 thru 060

In addition to the diagnostic assessments, colleges may use the following SAT and ACT scores recommended by the testing companies as benchmarks for college readiness:\*

SAT		ACT	
English	500	English	18
Critical Reading	500	Reading	22
Mathematics	500	Mathematics	22

\*To be eligible for enrollment in a College Transfer Pathway, students must demonstrate college readiness in English, reading, and mathematics on an approved test or tests. Eligibility may be demonstrated by achieving the required scores on a single test or by combining test scores from any of the approved assessments. For example, a student may combine a 19 on PLAN math with an 86 and an 80 on Accuplacer sentence skills and reading to demonstrate college readiness.

\*\*PLAN and PSAT scores recommended by ACT and College Board as indicators of college readiness.

\*\*\*The Reading & English part of the NC DAP is an integrated assessment of reading and English skills; meeting the composite cut score score for placement into ENG 111 is one way to demonstrate college readiness in order to participate in the College Transfer Pathway.

Career and College Promise (CCP) allows eligible high school students (junior and seniors) to enroll in community college courses! Tuition is FREE!  
Students declare pathways that lead to certificates, diplomas, or degrees, as well as providing entry-level job skills in specific areas.

All CCP students must complete the following:

- An MTCC application for Admission
- Submit high school transcript to MTCC
- Take the placement test exam or provide sufficient test scores from another approved assessment
- Complete the CCP registration and permission form.

For enrollment information, contact your local high school counselor, or call McDowell Tech at 659-0417. All information may be obtained from the following website:

[www.mcdowelltech.edu/high\\_school\\_program.html](http://www.mcdowelltech.edu/high_school_program.html)

Please see a list of pathway choices below. (Revised 7/15)

## College Transfer Pathways:

### Associate in Arts P1012C

ENG 111 Writing and Inquiry	3
ENG 112 Writing/Research in the Disciplines	3

(Pick 3 courses from 2 different disciplines)

Com 231 Public Speaking	3
ART 111 Art Appreciation	3
ENG 231 American Literature I	3
ENG 232 American Literature II	3
MUS 110 Music Appreciation	3

(Pick 3 courses from 2 different disciplines)

ECO 251 Principles of Microeconomics	3
ECO 252 Principles of Macroeconomics	3
HIS 111 World Civilizations I	3
HIS 112 World Civilizations II	3
HIS 131 American History I	3
HIS 132 American History II	3
POL 120 American Government	3
PSY 150 General Psychology	3
SOC 210 Introduction to Sociology	3

(Pick 1 course)

MAT 143 Quantitative Literacy	3
MAT 152 Statistical Methods I	4

MAT 171 Precalculus Algebra	4
(Pick 1 course)	
BIO 111 General Biology I	4
CHM 151 General Chemistry I	4
ACA 122 College Transfer Success	1

Total credit hours=31-32

### Associate in Science P1042C

ENG 111 Writing and Inquiry	3
ENG 112 Writing/Research in the Disciplines	3
(Pick 2 courses from 2 different disciplines)	
Com 231 Public Speaking	3
ART 111 Art Appreciation	3
ENG 231 American Literature I	3
ENG 232 American Literature II	3
MUS 110 Music Appreciation	3

(Pick 2 courses from 2 different disciplines)

ECO 251 Principles of Microeconomics	3
ECO 252 Principles of Macroeconomics	3
HIS 111 World Civilizations I	3
HIS 112 World Civilizations II	3
HIS 131 American History I	3
HIS 132 American History II	3
POL 120 American Government	3
PSY 150 General Psychology	3
SOC 210 Introduction to Sociology	3

(Pick 2 courses)

MAT 171 Precalculus Algebra	4
MAT 172 Precalculus Trigonometry	4
MAT 271 Calculus I	4
(Pick 1 sequence of courses)	
BIO 111 General Bio I & BIO 112 General Bio II	8
CHM 151 Gen. Chem. I & CHM 152 Gen. Chem. II	152

ACA 122 College Transfer Success

1

Total credit hours=35

## Career & Technical Education

### Pathways:

#### Accounting C25100P

ACC 120 Principles of Financial Accounting	4
ACC 121 Principles of Managerial Accounting	4
BUS 115 Business Law I	3
CIS 110 Introduction to Computers	3
BUS 110 Introduction to Business	3

Total credit hours = 17

<b>Accounting – Bookkeeping C25100BP</b>	
ACC 120 Principles of Financial Accounting	4
ACC 121 Principles of Managerial Accounting	4
ACC 129 Individual Income Taxes	3
CIS 110 Introduction to Computers	3
ACC 180 Practices of Bookkeeping	3

Total credit hours = 17

#### Accounting – Income Tax Preparation C25100TP

ACC 120 Principles of Financial Accounting	4
ACC 121 Principles of Managerial Accounting	4
ACC 129 Individual Income Taxes	3
ACC 130 Business Income Taxes	3
BUS 110 Introduction to Business	3

Total credit hours = 17

#### Advertising and Graphic Design C30100P

GRD 110 Typography I	3
GRD 121 Drawing Fundamentals I	2
GRD 131 Illustration I	2
GRD 152 Computer Design Tech I	3
GRD 141 Graphic Design I	4
GRD 151 Computer Design Basics	3

Total credit hours = 17

#### Air Conditioning, Heating, & Refrigeration C35100P

AHR 110 Introduction to Refrigeration	5
AHR 112 Heating Technology	4
AHR 113 Comfort Cooling	4
AHR 114 Heat Pump Technology	4

Total credit hours = 17

#### Automotive Systems Technology C60160P

AUT 141 Suspension and Steering Systems	3
AUT 141A Suspension and Steering Systems Lab	1
AUT 151 Brake Systems	3
AUT 151A Brake Systems Lab	1
AUT 181 Engine Performance I	3
AUT 181A Engine Performance I Lab	1
TRN 180 Basic Welding for Transportation	3
TRN 170 PC Skills for Transportation	2

Total credit hours = 17

#### Business Administration C25120P

BUS 115 Business Law I	3
BUS 137 Principles of Management	3
CIS 110 Introduction to Computers	3
ECO 251 Principles of Microeconomics	3
BUS 125 Personal Finance	3
BUS 230 Small Business Management	3

Total credit hours = 18

**Business Administration – Marketing & Retailing C2512FP**

MKT 120	Principles of Marketing	3
CIS 110	Introduction to Computers	3
ECO 252	Principles of Macroeconomics	3
BUS 115	Business Law I	3
MKT 227	Marketing Applications	3
BUS 110	Introduction to Business	3
Total credit hours = <u>18</u>		

**Carpentry C35180P**

CAR 110	Intro. To Carpentry	2
CAR 111	Carpentry I	8
CAR 112	Carpentry II	8
Total credit hours = <u>18</u>		

**Collision Repair & Refinishing Technology C60130P**

TRN 180	Basic Welding for Transp	3
AUB 111	Painting and Refinishing I	4
AUB 121	Non-Structural Damage I	3
AUB 131	Structural Damage I	4
AUB 136	Plastics and Adhesives	3
Total credit hours = <u>17</u>		

**Computer Information Technology C25260P**

CIS 115	Intro. To Programming & Logic	3
SEC 110	Security Concepts	3
CTS 120	Hardware/Software Support	3
DBA 110	Database Concepts	3
NET 125	Networking Basics	3
CIS 110	Introduction to Computers	3
Total credit hours = <u>18</u>		

**Computer –Integrated Machining C50210P**

MAC 111	Machining Technology I	6
MAC 112	Machining Technology II	6
MAC 151	Machining Calculations	2
BPR 111	Print Reading	2
Total credit hours = <u>16</u>		

**Cosmetology C55140P**

COS 111	Cosmetology Concepts I	4
COS 112	Salon I	8
COS 113	Cosmetology Concepts II	4
COS 114	Salon II	8
COS 115	Cosmetology Concepts III	4
COS 116	Salon III	4
COS 240	Contemporary Design	2
Total credit hours – <u>34</u>		

**Esthetics Technology C55230P**

COS 119	Esthetics Concepts I	2
COS 120	Esthetics Salon I	6
COS 125	Esthetics Concepts II	2
COS 126	Esthetics Salon II	6
Total credit hours = <u>16</u>		

**Early Childhood Education-Infant/Toddler C55220IT**

EDU 119	Introduction to Early Childhood Education	4
EDU 131	Child, Family and Community	3
EDU 153	Health, Safety and Nutrition	3
EDU 153A	Health, Safety and Nutrition Lab	1
EDU 234	Infants, Toddlers and Twos	3
PSY 244	Child Development I	3
Total credit hours = <u>17</u>		

**Early Childhood Education C55220P**

EDU 131	Child, Family and Community	3
EDU 146	Child Guidance	3
EDU 151	Creative Activities	3
EDU 119	Introduction to Early Childhood Education	4
EDU 184	Early Childhood Intro Pract	2
PSY 244	Child Development I	3
Total credit hours = <u>18</u>		

**Electrical/Electronics Technology C35130P**

ELC 113	Basic Wiring I	4
ELC 128	Introduction to PLC	3
ELC 112	DC/AC Electricity	5
ELN 229	Industrial Electronics	4
ISC 110	Workplace Safety	1
Total credit hours = <u>17</u>		

**Health Information Technology C45360P**

HIT 110	Fundamentals of HIM	3
MED 121	Medical Terminology I	3
MED 122	Medical Terminology II	3
CIS 110	Intro. To Computers	3
HIT 112	Health Law & Ethics	3
HIT 114	Health Data Systems	3
Total credit hours = <u>18</u>		

**Industrial Systems Technology C50240P**

MNT 110	Introduction to Maintenance Procedures	2
WLD 112	Basic Welding Processes	2
ISC 110	Workplace Safety	1
HYD 110	Hydraulics/Pneumatics I	3
BPR 111	Print Reading	2
ELC 112	DC/AC Electricity	5
Total credit hours = <u>15</u>		

**Manicuring/Nail Technology C55400MP**

COS 121	Manicure/Nail Technology I	6
COS 222	Manicure/Nail Technology II	6
Total credit hours = <u>12</u>		

**Networking Technology C25340P**

NET 125	Networking Basics	3
NET 126	Routing Basics	3
NET 225	Routing and Switching I	3
NET 226	Routing and Switching II	3
SEC 110	Security Concepts	3
Total credit hours = <u>15</u>		

**Nursing Assistant C45840P**

NAS 101	Nurse Aide I	6
NAS 102	Nurse Aide II	6
NAS 103	Home Health Care Nurse Aide	6
ACA 115	Success and Study Skills	1
Total credit hours = <u>16</u>		

**Office Administration C25370P**

OST 136	Word Processing	3
CIS 110	Introduction to Computers	3
OST 164	Text Editing Applications	3
OST 184	Records Management	3
OST 289	Administrative Office Management	3
Total credit hours = <u>15</u>		

**Photographic Technology C30280P**

PHO 110	Fundamentals of Photography	5
PHO 115	Basic Studio Lighting	4
PHO 224	Multimedia Production	3
PHO 140	Digital Photo Imaging I	4
Total credit hours = <u>16</u>		

**Web Technologies C25290P**

BUS 110	Introduction to Business	3
CIS 110	Introduction to Computers	3
WEB 110	Internet/Web Fundamentals	3
CIS 115	Introduction to Programming & Logic	3
WEB 115	Web Markup and Scripting	3
DBA 110	Database Concepts	3
Total credit hours = <u>18</u>		

**Welding Technology C50420P**

WLD 110	Cutting Processes	2
WLD 141	Symbols and Specifications	3
WLD 115	SMAW (stick) Plate	5
WLD 121	GMAW (MIG) FCAW/Plate	4
WLD 131	GTAW (TIG) Plate	4
Total credit hours = <u>18</u>		

# ACADEMIC REGULATIONS

## *Grading System*

MTCC grading system is based on a semester schedule. Grade point averages are determined by dividing the total number of quality points by the number of hours attempted. If a course is repeated, the latest grade will be used in determining a student's hour quality points. Grades will be issued at the conclusion of each semester based on the following system:

<b>Numerical Grade</b>	<b>Letter Grade</b>	<b>Quality Point Equivalent</b>
93-100	A-Excellent	4 points per credit hour
85-92	B-Above Average	3 points per credit hour
77-84	C-Average	2 points per credit hour
70-76	D-Below Average	1 point per credit hour
Below 70	F-Failure	0 grade point (punitive)
AU-Audit		No effect on grade point average
CR-Credit by Exam		No effect on grade point average
I-Incomplete		After 6 weeks from the beginning of the next semester, an incomplete grade becomes an "F." (punitive)
NS-No Show (never attended class)		No effect on grade point average
PD-Pass Developmental		No effect on grade point average
RD-Repeat Developmental		No effect on grade point average
W-Withdrawal prior to 30% point		No effect on grade point average
WP-Withdrawal Passing after 30% point		No effect on grade point average
WF-Withdrawal Failing after 30% point		0 grade point (punitive)

\*\* The above Numerical Grade does not apply to Nursing, Nursing Assistant, HIT, Dialysis and Surgical Technology students, for whom the lowest passing grade is a C.

\*\*An 80 or above is required for the Practical Nurse and ADN programs.

\*\*Under unusual or extenuating circumstances, faculty may use a different grading system other than the one listed above. Should this be necessary, the instructor must approve this change with administrators in Educational Programs and list the new grading system on the course syllabi for that particular course.

## *Incompletes*

The grade "I," incomplete, may be assigned when a student is unable to complete a course by the end of the semester. The student must present valid reasons why the course cannot be completed and obtain the instructor's approval

to receive an incomplete grade. This grade will be replaced with the grade earned when the work to be completed is satisfactorily accomplished prior to the first day of class in the following semester. If the incomplete course is a pre-requisite to a course the student is registered for in the following semester, and if the student is unable to complete the requirements to satisfy the incomplete grade, the student will be withdrawn from the subsequent course. An incomplete grade is treated as a failing grade in GPA computation after the first day of the subsequent semester when the work has not been completed. The faculty member of the course will complete a Change of Grade Form to document that the incomplete has, in fact, been satisfied.

Only under extenuating circumstances may the Vice President of Learning extend the deadline for the completion of an incomplete grade. In such a rare case, the student, faculty and Vice President will sign a memo of understanding outlining the parameters of the extension.

### ***Standards of Progress***

All MTCC students are expected to make academic progress toward graduation. The grade point average required for graduation is 2.00, indicating that the student has a C average in all course work. The calculations listed below are the acceptable grade point averages which students are expected to maintain for the number of semester hours they have accumulated.

#### ***ASSOCIATE DEGREE PROGRAMS***

<b>Cumulative Semester Hours</b>	<b>Minimum Grade Point Average</b>
0 - 10	1.00
11 - 20	1.25
21 - 30	1.50
31 - 40	1.75
41 - 50	1.90
51 - Completion	2.00

#### ***VOCATIONAL DIPLOMA PROGRAMS***

<b>Cumulative Semester Hours</b>	<b>Minimum Grade Point Average</b>
0 - 10	1.00
11 - 20	1.35
21 - 30	1.75
31 - Completion	2.00

*\*\*There are additional regulations for Nursing, HIT, Surgical Technology, BLET and other specific curriculums. Check with the Student Services Office, the Nursing Department, or your advisor for these regulations. Also, see Graduation Requirements in this Catalog.*

## ***Academic Advisement/Probation***

The above cumulative grade point averages are the minimums which must be attained in order for a student to make reasonable progress toward graduation. A 2.00 grade point average is required for graduation. Students who fall below the specified minimum will be placed on Academic Probation for the following semester and will be required to reduce their course loads.

## ***Academic Suspension and Readmission***

Students who fail to earn a 2.00 GPA during any semester of academic probation may be suspended from their program of study. The period of suspension will not be less than one semester, nor more than one year. Students who have been suspended for academic deficiencies should submit requests for readmission to the VP for Learning and Student Services. Requests for readmission will be considered in light of the applicant's ability, evidence of growth and maturity, time elapsed since suspension and other extenuating circumstances. Additional consideration will be given to those who have completed course pre-requisites. Enrollment limits and class sequencing will also be considered in evaluating a request for readmission.

## ***Recognition of Academic Honor Students***

Students enrolled full-time (12 credit hours or more) who receive no incompletes are eligible for the following academic honor's lists:

- President's List - Grade point average of 4.00
- Dean's List - Grade point average of 3.75 - 3.99
- Honor List - Grade point average of 3.50 - 3.74

Academic honor lists are posted on-campus and provided to newspapers each semester.

## ***Faculty Advisor***

Each student enrolled at MTCC will be assigned an advisor. The basic purpose of this is to provide each student personal assistance in orientation and progress throughout the time enrolled.

The student's faculty advisor may be consulted regarding various problems, but must, in all cases, be consulted by the student in the following instances:

1. When planning each semester's schedule.
2. When changing courses within the current program.
3. When changing programs of study.
4. When preparing to enter a final semester of studies to determine graduation eligibility.

If a student is unsure who his or her current advisor is, the student should go to Student Services for the advisor name, location and phone number. Advisors maintain office hours as posted on their office doors.

## ***Registration***

MTCC operates on the semester system (Fall, Spring, and Summer). All students are expected to register during the time set aside for that purpose. MTCC offers Pre-Registration dates to give students more time and flexibility to register and meet with their advisors as well as offering a one-time Registration Day. These dates are listed in the MTCC Catalog, the Schedule of Classes, and the MTCC website.

Students may not register for a semester until they have paid any deferred or past due charges owed to the College. These fees are paid through the Business Office. Students are responsible for obtaining registration clearance each semester before they are permitted to register for classes. All current students who register late will be charged an additional fee of \$5.00.

## ***Schedule Changes and Withdrawal***

Students may change their academic schedules during the prescribed period without scholastic penalty. Courses dropped after the 10% point in the semester are not subject to a refund. Courses dropped after the 30% point in the semester will be marked “WP” (Withdrawal Passing) or “WF” (Withdrawal Failing). A “WF” carries the same stigma as an “F” (Failure).

The steps below must be followed before schedule changes are official:

1. The student secures a Add-Drop-Withdrawal Form from the Student Services Office as well as a Tuition Refund Request Form if applicable.
2. Individual schedule changes must be approved by the appropriate instructor.
3. Notification of schedule changes must be acknowledged and recorded by the Student Services Office.
4. Students who do not withdraw from school officially and have to be administratively withdrawn from school because of absences will be dropped from classes with grades of “WP” or “WF.”

## ***Procedures for Student Withdrawal***

To officially withdraw from the College or from a course, the student must follow these procedures:

1. The student reports to the Student Services Office to obtain a withdrawal form and, if applicable, a Tuition Refund Request form.
2. The student is responsible for obtaining each instructor’s signature, last date of attendance and withdrawal grade on the withdrawal form, and is responsible for returning this form back to the Student Services Office. If the circumstances surrounding the withdrawal process do not allow the student to do the above, the Student Services Office will perform the withdrawal procedure for the student upon request.

3. A student may withdraw prior to the 30% point of the semester without scholastic penalty. This procedure, if followed, will entitle the student to have his permanent record show the notation "W" withdrawn. This notation indicates good standing and the privilege or readmission but may affect financial aid.
4. Any student who withdraws, or is withdrawn due to violation of the College's attendance policy, after the 30% point of the semester will receive a grade of "WP" or "WF."
5. Any student who fails to officially withdraw from the College may receive a grade of "WF." STUDENTS ARE ENCOURAGED TO INITIATE AND FOLLOW THROUGH WITH OFFICIAL WITHDRAWAL PROCEDURES.

### ***Course Substitutions***

Students may be allowed to substitute one course for another to meet graduation requirements. The substituted course must contribute to the goals of the degree program equally as well as the original course. Students must obtain approval from the instructor, advisor, Dean of Curriculum Programs or Dean of Health Science and the VP for Learning and Student Services to gain approval. A course substitution form may be obtained in the Student Services Office.

### ***Repeating Courses***

A course may be repeated for credit for the purposes of obtaining certification hours, gaining additional knowledge, improving a grade or for the purposes of auditing a class. A student may receive credit hours toward graduation only once for a course. In the case of a course which has been repeated, only the quality points and hours earned in the most recent enrollment will be calculated in the GPA. However, all grades will be shown on the transcript during the semester in which the course was taken.

No financial aid may be received by students repeating a course unless the student previously received a grade of "D" or "F" in the class.

Veteran's benefits may not be received by students repeating a course with a grade of "F" or "D," in a class requiring a higher grade, such as a class for transfer to another school.

### ***Auditing Courses***

Students who wish to audit courses must register and pay the same fees as students taking courses for credit. Unless the instructor makes an exception, auditing students are subject to the attendance policy (as stated in the *College Catalog and Student Handbook*). Students auditing courses which involve laboratory work may work in labs only during the course's scheduled laboratory hours and under the direct supervision of the instructor. Otherwise, labs are closed to auditing students.

No financial aid is received for audited classes. Audited courses are not eligible for Veteran's educational benefit payments.



### ***Credit by Examination***

A student may pass a specially prepared examination and receive credit for a course without having to do the normal course work. The student must enroll in the course and present evidence of his knowledge of the subject matter to the instructor prior to requesting credit-by-examination. The student must then present a Credit-by-Examination Request form to the instructor to begin the process. This form may be obtained in the Student Services Office.

If the student sufficiently passes the exam, he/she will receive a grade of “CR” which will be recorded on the transcript. The hours will be counted toward graduation, but will not be used in calculation of GPA.

A student may earn up to 20% of the course requirements for any curriculum through credit-by-examination.

### ***Change of Program***

All MTCC students wishing to change their program of study must pick up a Student Data Change Form located in the Student Services Office. A change of major will be applied at the beginning of each semester. Once your program change has been processed, a new advisor will be assigned for the purpose of re-evaluating your new program and transferring applicable credits.

Students who request a major change from a certificate or diploma program to an associate degree program will have to update placement tests through the Student Enrichment Center.

### ***Credit or Contact Hours***

Credit for course work is recorded in semester hours. One semester hour credit is given for one hour of class work, two hours of laboratory or three hours shop work per week during a 16 week term. Manipulative laboratory credit is one semester hour for each three hours of work. Manipulative laboratory involves development of skills and job proficiency. Co-op Education credit is one semester hour of credit for 10 hours of work per week.

### ***Maximum Course Load***

Students are encouraged not to enroll in more courses than they can successfully complete. Students enrolling for 19 credit hours up to 22 maximum credit hours must have special permission from the faculty advisor and VP of Learning and Student Services and have a GPA of 3.00 or higher.

### ***Class Attendance***

Students are expected to attend and be on time for all classes, labs and clinical periods and shop sessions.

A student who never attends class will be assigned a grade of “NS” (no show).

A student who is absent for five consecutive class sessions or two consecutive weeks of class or whose total absences exceed 20% of the total scheduled hours for a class, laboratory period or shop session will be automatically withdrawn

from class by their instructor and assigned a grade of “W” (Withdrawn) if the withdrawal date is prior to the 30% point of the course (30% of the total scheduled hours of the class). If the withdrawal date is after the 30% point, the student will be assigned a grade of either “WP” (Withdrawn Pass) or “WF” (Withdrawn Fail), depending upon whether the student was passing or failing the class at the time of withdrawal. (For Individualized Instruction, a student must complete 100% of required hours.) Health Science programs may have more stringent attendance requirements.

If the student does not follow through with official withdrawal procedures, the instructor will complete a drop/add form and give it to the Registrar in Student Services when a student has been withdrawn for attendance reasons. The instructor will have the option to assign a non-punitive grade, regardless of the student’s academic status in that course.

Exceptions to the above policies will be made only on rare occasions when the nature of a student’s absences warrant such exception. Appeals should be made in writing to the VP for Learning and Student Services. Permission to be readmitted to class (and thereby remove the withdrawal grade) will be granted by joint approval of the instructor responsible for the course and the VP for Learning and Student Services.

### ***Final Exams***

Final exams in all subjects will be held at the end of each semester. These evaluations (tests or other) combined with the student’s record in class will constitute the final grade.

### ***Grade Reports***

Final grade reports will be mailed to the student. If the student has any outstanding debt to the college, the grade report will be held until the debt is resolved.

### ***Change of Name or Address***

Students should immediately report any change of name or address on the appropriate form to the Student Services Office.

### ***Student Classification***

Full-Time Student:\*            A student enrolled for 12 or more credit hours.

Part-Time Student:\*           A student enrolled for less than 12 credit hours.

Freshman:                      A student with fewer than 32 semester hours of credit.

Sophomore:                    A student with 32 or more semester hours of credit.

\*Since the summer semester is an abbreviated term, 9 or more credit hours is considered full-time during the summer; less than 9 hours is considered part-time.

For financial aid purposes, a student must be enrolled for 12 semester hours of credit during any semester for which he/she wishes to be considered full-time, including the summer semester.

### ***Graduation Requirements***

It is the responsibility of each student to know and to meet the graduation requirements of the College in her/his particular program of study and to maintain the minimum required grade average. Counselors and faculty advisors are available to work with individual students, but the final responsibility for meeting graduation requirements lies with the student. The following list constitutes the minimum requirements for the Associate in Applied Science Degree, Associate in General Education Degree and Diploma:

1. Satisfy proficiency standards in English, math, and reading. Complete all course requirements as outlined by curriculums, achieve an overall grade point average of 2.00 or above with all passing grades.
2. Students who fail individual subjects or have incomplete grades must make up such deficiencies before being allowed to graduate.
3. Students graduating from a diploma or associate degree program are required to take either the **ETS Proficiency Profile** and/or the **ACT Career Readiness Certification** examinations prior to graduation. The results of this testing do not have any impact upon graduation and are utilized for the purposes of assessing the extent to which graduates have attained college-level general education competencies. The results of the assessment are utilized to determine the need for improvement strategies in curriculum coursework directly related to core general education competencies. The ACT Career Readiness Certification is an industry-recognized credential that is beneficial to students with job placement.
4. Applications for graduation must be submitted to the Student Services Office at least one semester prior to the completion of course requirements. One semester prior to the semester that the student expects to complete diploma or degree requirements, **the student is expected to have a preliminary record check by an academic advisor.** It is the student's responsibility to arrange for a final record check with the Director of Admissions.
5. Students are expected to be present for graduation practice and ceremony, if participating.
6. Students must fulfill all financial obligations to the College.

### ***Graduation***

**Graduation exercises are held each year at the end of the summer semester.**

### ***Graduation With Honors and High Honors***

A graduate who completes two-thirds of his/her curriculum program at MTCC with an accumulated grade point average of 3.50 to 3.79 on a 4.0 scale

will be graduated with “honors.” Graduates with an accumulated grade point average of 3.80 to 4.0 will graduate with “high honors.” These distinctions will be noted on the diploma and on the student’s permanent record.

### ***Graduation Caps and Gowns***

All orders for caps, gowns, and graduation invitations will be made through the Student Services Office. Notices will be posted relevant to dates for measurements. Students are urged to be prompt when making these orders.

### ***Completion of Two A.A.S. Degrees***

Students who fulfill degree requirements for two curriculum programs within a prescribed term of study shall be awarded only one degree at commencement. However, completion of both degree requirements will be noted on the student’s permanent record and credentials.

Any MTCC graduate who desires a second degree must fulfill all degree requirements for the second degree plus a minimum of 20 semester hour credits earned in residency beyond the first degree. Students with an Associate Degree from another accredited institution may receive a second Associate Degree from MTCC by fulfilling the conditions outlined above.

# DISTANCE LEARNING & NON-TRADITIONAL CLASSES

## *Distance Learning*

**Distance Learning** is teaching and learning across geographical distances through the use of a Course Management System (CMS), a software program for online course delivery. MTCC utilizes Blackboard and Moodle CMS, and students use computers and the Internet to access course materials, lectures, notes, assignments, and tests.

Distance learning courses offer a high degree of flexibility and may eliminate barriers to educational goals. Students taking courses by distance learning methods must be self-motivated, self-disciplined learners, and should have average or above average computer skills. Since students work more independently than in traditional courses, distance learning may not be the best method of instruction for all students.

All facilities and resources available to traditional MTCC students, such as student services, library resources, and support services, are also available to the distance learner, and the same tuition and fees apply, as does curriculum credit.

MTCC charges no student fees solely associated with Distance Learning courses.

## *Methods of Instruction in Distance Education Classes*

- **Online** class instruction is offered off campus and delivered via the Internet. Students receive their assignments and information from an instructor, participate in online discussion forums, submit work, and take tests through Blackboard or Moodle CMS. However, a student may be required to come to campus or select a college approved proctor to complete an exam. Instructors are available by email, telephone, and on campus during office hours. These sections are designated by 95, and 96 on the academic schedule or roster.

*An **Orientation** for online classes is provided and it is highly recommended that all online students attend this meeting; the orientation will provide useful information, resources, and tutorials that can help a student succeed in distance education courses. By completing the orientation prior to taking an online course, a student will be better prepared and ready to concentrate on the course content, rather than logistics and software issues.*

*Location: main campus. Date: first day of classes for each semester.*

- **Hybrid** courses are offered on campus, but they have an internet component. Students will meet with their professor in a classroom at predetermined days/times. The online portion of the course is supplemented with class notes, assignments, tests, and discussion forums, which are available online through Blackboard or Moodle. These sections are designated by 40, 41, 42, 43, 44, 45, and 46 in the academic schedule or roster.

- **North Carolina Information Highway (NCIH)**, also known as the Information Highway courses, are teleconferences that are delivered in a special classroom on campus at a specific time and day. This method enables an instructor at one location to teach to one or more other locations. It also allows MTCC to provide courses that might otherwise not be available locally. It is full, two-way, audio/video communication; classes are both sent and received using microphones, video cameras, television monitors, and telephones in the Interactive Television (ITV) classroom. Blackboard and/or Moodle are utilized as a supplementary component for testing and assignments. Sections that are designated by a 67, 68, 69, and 70 are NCIH classes in the academic schedule or roster.
- **Web-Assisted** classes meet face to face for all class meetings, but students are required to have internet access as a supplemental part of the course. My Math Lab, My Art Lab, Web Tutor, and My Education Lab are a few of the online web-assisted programs that we utilize. Section 71 and 72 on the academic roster are web-assisted classes in the academic schedule or roster.
- **Telecourse** is an innovative instructional method involving the use of television programs, textbooks, CD's, and other materials to provide distant access to a limited number of curriculum courses. These courses are designated by 60 section on the academic roster.

## ***Non-Traditional Classes***

### ***Saturday Classes***

Traditionally, curriculum classes have been offered at MTCC only during the regular workweek. However, beginning in 1998, occasional courses will be offered to MTCC students who would prefer to attend classes on Saturdays due to work, family or social commitments during the workweek. Student demand and availability of instructors will determine which classes will be offered each semester.

The requirements for these classes are the same as for other curriculum classes of the same title and course number. However, since these classes are condensed into one meeting per week, rather than two, three or more, students will be expected to attend class for an extended period of time each Saturday. The total number of contact hours will be the same as for classes offered during the workweek.

### ***Individualized Instruction (Independent Study)***

Students may under certain circumstances register for courses by Individualized Instruction. Students who wish to register for a course through Individualized Instruction should contact the Student Services Office to procure the appropriate form to be completed. The student is required to have a 2.50 grade point average or recommendation of faculty advisor, present reasons why the course cannot be taken in a regular class, obtain written approval from the

instructor of the course and the VP for Learning and Student Services, and submit a completed Request for Individualized Instruction Form to the Student Services Office.

No more than one course per semester may be taken as Individualized Instruction, for a maximum of 12 semester hours that can be counted toward graduation.

### ***Cooperative Education (Co-Op)***

Cooperative Education (Co-op) is designed to give students an opportunity to receive non-major elective credit, and in some limited cases, required credit for on-the-job work experience. Students participating in the cooperative education program will work under the direction of the MTCC Cooperative Education Director, their job supervisor, and their Curriculum Advisor. The work experience used for co-op must be significantly related to the student's program of study. Furthermore, the cooperative education student may receive up to eight hours of academic credit for an approved Associate of Applied Science program, up to four hours of academic credit for an approved Diploma program, up to two hours of academic credit for an approved Certificate program, and one credit hour of academic credit in the Associate of Arts program.

#### ***Eligibility***

Any student who is enrolled in a curriculum program which offers Co-op for academic credit may be eligible if they meet the following requirements:

1. Be approved by his/her advisor.
2. Be approved by the Co-op Director.
3. Students with previous work experience must be registered for classes in their program of study, or must have completed such courses before taking Co-op classes.
4. Students with no previous work history must complete at least one semester at the college before taking Co-op Education classes.

#### ***Academic Credit***

A minimum work load of 10 hours per week is required to qualify for the program. In most cases, the student may earn credit toward the Associate in Applied Science and Associate in Arts degree programs.

#### ***Co-op Options***

Eligible students in the College Transfer program must use Co-op credit for non-major elective credit. Students in Technical Degree programs must use Co-op credit for non-major elective credit, except in programs where Co-op courses are listed as a requirement. Approval for substituting Co-op for required curriculum courses must be approved by the Dean of Curriculum Programs, the VP for Learning and Student Services, the Curriculum Advisor, and the Co-op Director.

### ***Application Procedure***

Students interested in participating in the Co-op program must contact the Co-op Director and curriculum advisor. Students are selected for Co-op based on an evaluation of their interview and other pertinent criteria. After a student has been approved for Co-op, the curriculum advisor will assist him/her in locating an appropriate assignment. Students already working must have the approval of the College and employer.

### ***Registration***

Students must have the approval of the Co-op Director and curriculum advisor before registering for a Co-op work experience. Those students who are approved must follow normal registration procedures. Students are invited to inquire at the Co-op Office for more detailed information.

### ***High School Completion***

Adults may complete high school education through the High School Equivalency Program. This program is available to all non-high school graduates who are at least eighteen years of age or those sixteen years of age who have been out of public school six months or longer. Students between the age of sixteen and eighteen must have a minor permission form signed by a parent or legal guardian, as well as the signature of the principal at the last high school attended.

Adults may earn a high school equivalency certificate by successfully completing the General Educational Development tests (GED). GED tests are designed to measure a person's knowledge and skill in five areas. Test One measures the ability to use correct and effective English in written expression. Tests Two, Three and Four measure the ability to read, understand and interpret material in social studies, natural sciences and literature, respectively. Test Five measures the ability to solve problems in mathematics. GED tests are given according to the schedule published in local newspapers and in the *Schedule of Classes published* each semester. Generally, these tests will be given on the 1st and 3rd Thursday and Friday of each month. There is a \$25.00 charge for the series of GED tests, paid once per year.

Equivalency Certificates are issued by the N.C. State Board of Education and are recognized almost without exception as the legal equivalent of a diploma from an accredited high school.



# STUDENT EXPENSES

McDowell Technical Community College receives financial support from local, state and federal sources, allowing educational opportunities at a minimum cost. **Tuition fees are set by the State Board of Community Colleges and are subject to change without notice.** Cost of textbooks and supplies are additional expenses which vary according to the program of study. The payment of tuition and all required fees must be made at the time of registration unless deferred payment arrangements have been made with the Business Office.

*\*Students are not officially registered until tuition payment and fees have been received in the Business Office or deferred by Financial Aid or a signed Promissory Note.*

*\*\*The following information applies to students enrolled in curriculum programs (technical, vocational, college transfer and general education). For information on Continuing Education fees, see the appropriate section of this catalog.*

## **TUITION (In-State)**

**\$72.00 per credit hour, up to a maximum tuition charge  
of \$1,152.00 per semester.  
[16 or more credit hours=\$1,152.00]**

## **TUITION (Out-of-State)**

Any vocational or technical student whose legal residence is outside the State of North Carolina, or, in the case of students who are boarding or living with relatives in the community, whose parents or guardians are living outside the State, shall pay tuition fees as follows: \$264.00 per semester credit hour, up to 16 credit hours; maximum tuition charge of \$4,224.00 per semester.

### ***Past Due Accounts***

Students may not register for a semester, receive transcripts or participate in graduation until deferred or past due charges are paid in the Business Office.

### ***Residency Status For Tuition Purposes***

Under North Carolina law, each person must be classified as a resident or nonresident for tuition purposes. North Carolina law (General Statute 116-143.1) requires that, "To qualify as an in-state resident for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to enrollment in order to be considered for classification as a North Carolina resident."

Failure to provide accurate information for residency classification can result in classification as a nonresident and/or disciplinary action. All applicants who are petitioning for in-state residency must complete a North Carolina Residency-and-Tuition Status Application Form for further consideration and appeal. This form is available in the Student Services Office of the Administration Building (Building 11). Questions regarding residency status should be directed to the VP for Learning and Student Services.

Regulations concerning the classification of students by residence are set forth in "A Manual to Assist The Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." A copy of the manual is available in the Student Services Office for student inspection.

### ***Tuition Exemptions***

College tuition exemptions are as follows:

- Current high school students taking courses at community colleges.
- Some students enrolled in the BLET training program .
- Any person who is the survivor of a law enforcement officer, firefighter, volunteer firefighter, or rescue squad worker killed as a direct result of traumatic injury sustained in the line of duty may be eligible for a tuition waiver.
- Any spouse or children (ages 17 to 22) of law enforcement officers, firefighters, volunteer firefighters, or rescue squad workers who are permanently and totally disabled as a result of a traumatic injury sustained in the line of duty may be eligible for waiver of tuition.

### ***Late Registration Fee***

Currently enrolled students who do not pay tuition and fees on or before the day of registration will be assessed a \$5.00 late charge. New students or former students (students who were not enrolled during the past academic year) who register during the prescribed registration period will not be assessed a late registration fee.

### ***Activity Fee***

All curriculum students are required to pay the Student Government Activity Fee as follows:

\$1.00 per credit hour

These fees are not refundable except when approved by the Vice President for Finance and Administration according to Business Office policy.

### ***Student Insurance Fee***

In order that every student may be covered by insurance in case of an accident,

institutional policy requires that each student enroll in the accident insurance program at registration. The established fee is \$1.25 per semester. This fee is not refundable.

### ***Liability Insurance***

Students enrolled in Practical Nursing Education, Associate Degree Nursing, Nursing Aide, Teacher Associate, Cosmetology, Nail Technology, Health Information Technology, Surgical Technology, Phlebotomy and Early Childhood Associate are required to purchase professional liability insurance coverage. The cost of liability insurance is \$14.50 per year.

### ***Technology Fee***

In order to offset the cost of copies, toner, state-of-the-art computer labs, and other technology made available to students, a fee of \$1.00 per credit hour, up to a maximum of \$25.00 per semester, is charged to each student at the time of registration. This fee is not refundable.

### ***Identification Badge***

All curriculum students are required to purchase a picture identification badge to be on his/her person at all times while on the campus grounds for a fee of \$3.00 for the academic year.

### ***Parking Fees***

All curriculum students are required to purchase a parking pass to be placed in his/her vehicle at all times while on the campus grounds for a fee of \$5 per semester. All occupational extension students taking a semester-long course are required to purchase a pass to be placed in his/her vehicle at all times while on the campus grounds for a fee of \$5 per semester. Other short-term students taking classes will be identified with parking passes given at the time of registration.

### ***Fees For Special Purposes***

Graduation expenses for diploma, caps and gowns are payable at the beginning of the semester in which the student expects to graduate. These costs can be obtained from the Student Services Office.

### ***Educational Testing Fee***

Students enrolled in the Practical Nursing Education and Associate Degree Nursing Programs are charged an educational testing fee each semester. There are testing fees for PNE and for ADN students which will be provided at student orientation.

### ***Transcript Copy Fee***

Students should go to Student Services to request a transcript. A fee of \$3.00 is charged for copies of official transcripts.

### ***Additional Expenses***

Some curriculums require students to purchase additional supplies, equipment and/or uniforms. Students should contact the instructor/advisor in the curriculum they plan to enter.

### ***Book Costs***

Students are required to purchase the necessary textbooks for courses. Copying of textbooks is not allowed and is a violation of copyright laws in most cases. The average cost ranges from approximately \$500 to \$800 per semester, depending on the student's chosen curriculum. Workbooks and certain text materials which are expendable items may be required by some instructors.

### ***Continuing Education Fire and Rescue College Fee***

Students attending the McDowell Fire and Rescue College will be charged a fee of \$10.00.

### ***Returned Check Fee***

A \$25.<sup>00</sup> service charge is assessed for each returned check.

### ***Refund Policy***

**Tuition refunds are not automatic; it is the student's responsibility to file a request.** Tuition refunds for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. A 100% tuition refund can be made to a student who withdraws by registration day. A 75% tuition refund can be made to a student who withdraws before the 10% point in the semester. An official withdrawal must be made by completing the "Add/Drop/Withdrawal" form. An official request for a refund must be made by completing the "Request for Refund" form. Both of these forms should be submitted together to the Student Services Office for processing. Tuition refunds will not be considered after the 10% point in the semester. There is no refund made on activity fees or insurance unless the class is cancelled. The "Request for Tuition Refund" and "Add/Drop Withdrawal" forms may be obtained in the Student Services Office.

Students will receive a copy of the textbook refund policy when textbooks are published in the College Bookstore. Books must be returned within ten days of registration for consideration of refund. All refunds are subject to the terms and conditions stated on the textbook refund policy.

# STUDENT FINANCIAL AID

Students who have satisfactory academic records and are in need of aid may qualify for financial assistance. Although the primary responsibility for financing an education remains with students and families, McDowell Technical Community College participates in several programs designed to supplement individual and family contributions. Financial aid may consist of grants, scholarships, campus employment, or any combination of these as determined by the policies of the Financial Aid Office.

## *Eligibility for Financial Aid*

Eligibility requirements for receiving financial aid may change from year to year. Specific requirements are established by the U.S. Department of Education for federally funded aid programs. The North Carolina State Education Assistance Authority and the North Carolina Community College System determine eligibility for state funded programs. Any local and/or private scholarship sources determine the eligibility for awarding funds from their respective programs.

Students must be in a program leading to a degree, diploma, or eligible certificate (at least 16 semester hours and/or 38 contact hours in length) to be eligible for Federal financial aid. Therefore, students enrolled as Special Credit/Undecided are not eligible to receive Federal financial aid. In addition, any student in default of a student loan or owing a repayment of Pell Grant funds will not be awarded financial aid. Students must have a high school diploma or GED certificate in order to receive federal and/or state financial aid. An official copy of that transcript must be on file in the MTCC Admissions Office.

All students receiving financial aid must maintain satisfactory academic progress. At MTCC, students must maintain a grade point average of 2.0 and complete 67% of all credit hours attempted. Students that receive financial aid and subsequently withdraw from classes before the end of the semester may be required to repay a portion of Pell Grant and SEOG funds.

Students falling below the minimum standard for academic progress and/or in ineligible status due to overpayment of Pell Grant funds or student loan default should contact the MTCC Financial Aid Office to determine how their eligibility may be regained. (See upcoming section regarding satisfactory academic progress for further explanation.)

## *Important Information for Pell Grant Recipients Regarding Lifetime Eligibility*

In December 2011, President Obama signed into law the Consolidated Appropriations Act of 2012 (Public Law 112-74). This law significantly impacts Federal Student Aid Programs.

One of the most significant changes is Federal Pell Grant Duration of Eligibility. The law reduces the duration of a student's eligibility to receive a Federal Pell Grant to 12 full-time semesters (or it's equivalent). This provision applies to all Pell Grant eligible students effective the 2012/2013 academic year. The calculation of the duration of the student's eligibility will include all years, no matter how far in the past, that the student has received Federal Pell Grant funding. Therefore, every semester

that a student has received Pell Grant funding will count toward the semester limit. Students that have attended at less than full-time status in the past, or at present, will be assessed accordingly.

The MTCC Financial Aid Office will attempt to notify students of their remaining eligibility as they apply or reapply for financial aid.

## ***Application For Financial Aid***

Students applying for financial aid at MTCC should complete a Free Application for Federal Student Aid (FAFSA). There is no technical deadline to apply for financial aid at MTCC, but students should apply at least eight weeks prior to the beginning of their first semester at MTCC. Funds are limited in some financial aid categories, i.e. Federal Work Study and Supplemental Educational Opportunity Grant (SEOG). Therefore, early applicants are most likely to receive assistance if eligible and funds are available. Students may also be required to submit additional internal and external scholarship applications if interested in applying for aid other than or in addition to Federal and State funds. FAFSA forms and scholarship applications are available in the MTCC Financial Aid Office and at local high school guidance offices.

Student financial aid information is kept confidential within the MTCC Financial Aid Office. Student financial aid awards are disbursed once a semester and can be adjusted according to changes in eligibility and enrollment.

In order to guarantee timely usage of financial aid funds at registration, students should apply via the FAFSA prior to the dates listed below:

Fall Semester	July 1
Spring Semester	November 1
Summer Semester	April 1

Applications received after the dates listed will be processed as quickly as possible, but there will be no guarantee that the student will have a definite financial aid decision prior to the beginning of the semester.

## ***Awarding of Financial Aid***

Most awards on the student's award offer letter are based on full-time enrollment. The award will be reduced proportionately if the student attends less than full-time. The requirement for full-time eligibility for Federal and/or State financial aid is 12 or more credit hours; 3/4 time is 9, 10, or 11 credit hours; 1/2 time is 6, 7, or 8 credit hours. In some cases, funds may be disbursed to students attending less than 1/2 time (5 credit hours or less). Students must always be enrolled in at least six credit hours to be eligible for the NC Community College Grant and NC Education Lottery Scholarship. Students enrolled in certain programs of study that do not lead to any Associate's Degree will have their award(s) calculated based on a clock hour formula instead of credit hours. The credit hours are converted into clock hours prior to any award being determined.

Beginning in Fall 2011, students enrolled in the following certificates and diplomas will have their financial aid eligibility calculated based strictly on clock hours, instead of credit hours or clock hour conversion:

- Cosmetology Diploma
- Esthetics Certificate
- Cosmetology Instructor Certificate
- Esthetics Instructor Certificate
- Basic Law Enforcement Certificate

Students receiving financial aid for these curriculum programs will be paid an initial disbursement of aid. They must then complete a specified amount of hours and weeks of instruction prior to being paid their second and subsequent disbursements. Specifics of each program are available in the MTCC Financial Aid Office.

Because of the number of credit and/or contact hours, the following certificates are not eligible for financial aid:

- Collision Repair and Refinishing Certificate
- Cosmetology- Manicurist/Nail Technology Certificate
- Cosmetology- Manicurist Instructor Certificate

## ***Nondiscrimination in Aid Awards***

As with all programs of the College, financial aid awards are made equitably without regard to age, race, color, sex, handicap, disability, religion, political affiliation, or national/ethnic origin. For further information, see the College's policies on discrimination in the General Information Section of this catalog.

## ***Satisfactory Academic Progress Standards***

Federal regulations require that institutions of higher education establish minimum standards of Satisfactory Academic Progress (SAP) that students must meet in order to receive federal/state financial aid. This progress is measured qualitatively and quantitatively. The academic records of students are evaluated at the end of each semester, including Summer. In order to accurately measure a student's progress, the total academic record must be considered. This includes classes transferred in from other institutions, developmental and curriculum classes.

To be eligible for financial aid, students must meet the following minimum guidelines:

- Qualitative: Maintain a minimum grade point average (GPA) of 2.0.
- Quantitative: Complete a minimum of 67% of cumulative credit hours attempted.
- Time Frame: Must complete program of study in a timeframe not to exceed 150% of the length of the program for full-time students. Transfer credits used toward the student's program of study will be considered for maximum time frame.

If a student fails to maintain satisfactory academic progress standards by either the quantitative and/or qualitative measures, he/she will lose eligibility for Federal and/or State financial aid. If the student feels that he/she has a legitimate mitigating circumstance which prevented successful completion of course work, he/she may complete a Statement of Financial Aid Warning requesting reconsideration for financial aid. This statement is presented to the Director of Financial Aid for consideration. If the warning status is granted, the student will receive aid for the upcoming semester and must agree to complete all classes with a grade of "C" or better. Failure to do so will result in suspension of Federal and/or State financial aid. If the student is unable to meet the minimum overall academic standards despite successful completion of all classes in the semester of warning, he/she may complete the Financial Aid Satisfactory Academic Progress Appeal Request to apply for continued eligibility. Additionally, if a student does not meet the requirements set forth in their Statement of Financial Aid Warning, he/she must appeal via the Financial Aid Satisfactory Academic Progress Appeal Request to apply for future financial aid eligibility. Appeal decisions are made by the MTCC Financial Aid/Scholarship Committee and are final. Only one appeal per academic year will be considered.

## ***Title IV Repayment Policy***

Per Federal Financial Aid Regulations, students receiving financial aid from Title IV funds (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant and/or Federal Direct Loans) will be required to repay a portion of their awarded financial aid if the student withdraws from all classes prior to the 60% point of the semester. These requirements do not apply to any student who does not actually withdraw from all classes. For example, if a student enrolled in 12 credit hours withdraws from a 3-hour course only, because the student has 9 remaining hours, this is not a complete withdrawal.

Students eligible for federal financial aid begin earning Title IV financial aid funds on the first day of class attendance. Students are awarded funds on the assumption that he/she is eligible for the full amount received. Students that stop attending classes should obtain a drop/add/withdrawal form from Student Services. Each instructor should be contacted so that the last day of attendance can be documented and the appropriate grade given. If the student ceases to attend without informing his/her instructors and/or Registrar's Office, the student will be withdrawn from classes by the instructor as the maximum absence number in the class is reached.

Once the student is withdrawn from all classes, the MTCC Financial Aid Office is responsible for calculating any amount of overpayment based on the last date of attendance if the student completely withdraws from all classes. The student could be responsible for repayment in part to The US Department of Education, in addition to McDowell Technical Community College. The student is given written notification via US Postal Service of the amount that is owed due to overpayment.

The amount of the repayment is due in full when notification is received. As long as there is any unpaid balance at MTCC or with the Department of Education, the student will not be awarded financial aid funds. Additionally, any unpaid balance at MTCC will prevent the student from future registration of classes or receiving MTCC transcripts.

**\*\*See page 45-47 for more information about withdrawal procedures and class**



attendance. Additionally, see page 58 for full explanation of MTCC's refund policy should a student withdraw from any and/or all classes prior to the 10% point of the semester.\*\*

## ***Types of Aid***

### **I. Government Aid Programs**

#### ***Pell Grant***

The Federal Pell Grant Program provides the foundation on which the financial aid package is developed. Students begin the financial aid process by completing the Free Application for Federal Student Aid (FAFSA). From this application, an expected family contribution (EFC) is calculated to determine the family's contribution to the student's education. This figure is used by the Financial Aid Office to determine the amount of the Pell Grant award. Federal Pell Grant awards can range from \$626 to \$5775 per academic year depending on enrollment status.

#### ***Supplemental Educational Opportunity Grant (SEOG)***

This grant is awarded to students with exceptional financial need. Limited funds are available with priority given to students receiving Pell Grant funds with a low expected family contribution. Priority is given to students completing their FAFSA prior to March 15.

#### ***Federal Work-Study (FWS)***

A limited number of part-time employment positions are available to eligible students on campus. The work-study program provides students with an additional means of contributing to their educational costs. When possible, students are placed in an area of work which matches their career interests and skills.

#### ***Vocational Rehabilitation***

Students who have a substantial handicap to employment from a physical or emotional problem may be eligible for funds through the N.C. Division of Vocational Rehabilitation. Application should be made through the V.R. Office in the county of residence.

## **II. State Aid Programs**

### ***North Carolina Community College Grant (NCCCG)***

North Carolina residents that have completed the Free Application for Federal Student Aid to determine eligibility for Pell Grant may also be eligible to receive the NCCC Grant. Students must be enrolled in at least six credit hours in an eligible program to be considered for this grant. If eligible, students are awarded this grant for Fall and Spring Semesters (no award is available for Summer Semester). The guidelines for this grant are different than those for Pell Grant; therefore not all Pell Grant recipients will be eligible. No additional application is necessary; eligibility is determined from the FAFSA.

### ***North Carolina Education Lottery Scholarship (NCELS)***

North Carolina residents that have completed the Free Application for Federal Student Aid to determine eligibility for Pell Grant may also be eligible to receive this scholarship. Students must be enrolled in at least six credit hours in an eligible program to be considered for this scholarship. If eligible, students are awarded this scholarship for Fall and Spring Semesters (no award is available in Summer Semester). The guidelines for this grant are different than those for Pell Grant and NC Community College Grant; therefore not all Pell Grant recipients will be eligible. No additional application is necessary; eligibility is determined from the FAFSA.

### ***Forgiveable Education Loans for Service (FELS)***

This program is made possible through the North Carolina State Education Assistance Authority and allows students to obtain the degree they want and repay the loan funds by staying in North Carolina in areas with a critical need for more employees, such as nursing, teaching, allied health fields or medicine. Recipients of this loan sign a promissory note agreeing to work in North Carolina after graduation in an approved position for each academic year of funding received. Students should visit [www.cfnc.org/FELS](http://www.cfnc.org/FELS) for details on requirements and the application process.

### ***Golden LEAF Scholars Program--Two-Year Colleges***

This scholarship is funded through a grant from the Golden LEAF Foundation, a non-profit organization hoping to help North Carolina's economy. Selection factors include the effects of the declining economy on students and their families. The scholars program provides up to \$750 per semester for curriculum students and \$250 per semester for occupational education students. Students may apply by completing a Golden LEAF scholarship application. These are available in the MTCC Financial Aid Office.

### ***Less Than Half Time Grant***

Funds for this grant are provided by the NC Department of Community Colleges. Students must be enrolled for less than six credit hours and fall within specific EFC (expected family contribution) limits to be eligible for these funds in Fall and/or Spring semesters. No additional application is necessary; eligibility is determined from the FAFSA.

### ***Targeted Assistance Grant***

Funds for this grant are provided by the NC Department of Community Colleges. Students must be enrolled in one of the following programs to be con-

sidered for this grant: Machining Technology, Industrial Systems or Electrical/Electronics. No additional application is necessary; eligibility is determined by the FAFSA.

### ***WIA, TAA, TRA***

Students who become unemployed may qualify for educational financial assistance in addition to unemployment compensation. Students interested in applying for TAA or TRA benefits should contact their local Employment Security Commission. Another possible source of educational assistance for unemployed and/or underemployed individuals is WIA benefits. Interested individuals should contact the JobLink Center for more information and eligibility criteria.

## **III. Institutional Aid**

### ***McDowell Technical Community College – Board of Trustees Scholarship***

The MTCC Board of Trustees Scholarship is awarded by the MTCC Scholarship Committee to four (4) students per year for \$200 per semester. This scholarship is based on financial need. Applications are available in the Financial Aid Office at MTCC.

### ***Crane Fund for Widows and Children***

Crane Resistoflex Corporation provides scholarship funds for needy and deserving widows and/or children or deserving wives and/or children of men who provide limited support due to age and disability. Applications are in the MTCC Financial Aid Office.

## **IV. Other Scholarships**

In addition to the above programs, various companies, organizations and individuals provide scholarships as funds allow.

### ***American Society for Quality Control Fund of the Community Foundation of WNC***

This scholarship opportunity is available to students who aspire to continue their education in advanced studies in a field which relates to quality control. To be eligible to apply, the student must be a high school graduate or possess an equivalency certificate and be a resident of a county within Western North Carolina. Applications are available in the MTCC Financial Aid Office.

### ***Route 70 Cruisers Scholarship***

This scholarship opportunity was established in 2012 by the Route 70 Cruisers, a local car club from Old Fort, NC. These scholarship funds are designated for students pursuing an education in the automotive industry. One scholarship is awarded annually to a student in the Automotive Systems Technology program and another to a student in the Collision Repair and Refinishing Technology program. Recipients must have a strong desire to pursue a career in the automotive industry and have financial need.

### ***American Legion Post 56 Veteran's Memorial Scholarship***

This scholarship opportunity was established in 2012 by the McDowell American Legion Post # 56. These scholarships are to be awarded to a McDowell County Veteran, spouse or child of a Veteran. Two scholarships are awarded annually. Students can be enrolled in any program of study, but must exhibit financial need.

### ***Gerald P. Cox and Meillia S. Cox Family Foundation, Inc. Scholarship***

This scholarship is given by the Cox Family Foundation to assist students attending Community College in pursuing their goal of college education to prepare as nurses to meet the workforce needs of the healthcare industry, particularly in geriatrics. Students must be in good academic standing with a minimum grade point average of 2.5, exhibit exemplary character, and demonstrate potential in the field of nursing. The amount of the scholarship(s) is determined by financial need and is awarded to the student in equal disbursements for Fall and Spring semesters.

### ***Jeld-Wen Scholarship***

Jeld-Wen Fiber provides scholarship funds for two incoming freshmen in any curriculum. Applications are available in the MTCC Financial Aid Office.

### ***State Employee's Credit Union Foundation Scholarship***

The SECU Foundation established this two-year scholarship program to assist NC Community College System students achieve academic success. Students must be a resident of North Carolina, demonstrate financial need per results of current FAFSA, be enrolled full-time and maintain a grade point average of at least 2.5 in order to be eligible to apply. Four scholarships are awarded annually. Applications are available in the MTCC Financial Aid Office.

### ***Wells Fargo Technical Scholarship***

The Department of Community Colleges makes the Wachovia Technical Scholarship available to second-year students in a two-year technical program who demonstrate financial need and show academic promise. One scholarship is awarded yearly. Applications are available in the MTCC Financial Aid Office.

### ***William Harold Smith Scholarship***

The William Harold Smith Charitable Trust provides scholarship assistance to graduates of McDowell High School attending a postsecondary institution. Awards are based on need and may be renewed as long as the recipient maintains satisfactory academic progress. Applications are available in the Financial Aid Office or at McDowell High School. Applications must be submitted each semester for which aid is requested.

## **V. Veterans Benefits**

### ***U.S. Department of Veterans Affairs Benefits***

McDowell Technical Community College is approved by the North Carolina State Approving Agency for the enrollment of persons eligible for education assistance benefits from the U.S. Department of Veterans Affairs (DVA). Entitled veterans, participants in the Montgomery G.I. Bill contributory program, active duty military personnel in voluntary education programs, active members of the

National Guard who are drilling, and eligible spouses and offspring who may be certified to the U.S. DVA Regional Office as enrolled and in pursuit of an approved program of education. This institution has been approved for one semester only of provisional admission. Due to late registration, some students may fail to have all admissions documentation (transcripts or test scores) and may be admitted as provisional students for one semester pending receipt of the required documentation. However, students who fail to submit all transcripts during the second semester will not be re-certified.

### ***Dual Programs***

McDowell Technical Community College is approved for Veterans' Affairs students to pursue dual programs simultaneously. Students desiring a second program must meet with the Veterans' Certifying Official and their advisor to complete a Dual Program Approval Form and follow the guidelines listed in the college catalog. Students must meet certain criteria to be certified for Veterans' Affairs benefits while seeking completion of dual programs. Dual programs must be related to a single career field.

### ***DVA Standards of Progress, Attendance and Conduct***

Public Law 93-508 requires that each educational institution approved for veterans to receive educational benefits (GI Bill) must establish written policies that clearly state what is expected of the veteran in the areas of academic progress, class attendance and conduct. Many of these expectations are required of all students, veterans and non-veterans, and are covered in this Catalog and Student Handbook.

Further requirements include that any recipient of veteran's benefits: (1) who withdraws from all subjects undertaken will have his or her educational benefits terminated from the last date of attendance; (2) who drops any of his or her courses may have benefits reduced; and (3) must maintain a level of satisfactory academic progress. Students are considered to be making unsatisfactory progress if they have not achieved a level of progress consistent with their time in the program. Veterans who are making unsatisfactory progress will be terminated by the Veterans Certifying Official. When performance meets the level of satisfactory progress, the recipient may be recertified. Recipients of DVA benefits need to consult the Veteran's Certifying Official before enrolling in telecourses, Cooperative Education classes, Internet classes, or making course substitutions.

#### ***Veterans Pay Schedule***

For accuracy, a veteran should contact the U.S. Department of Veterans Affairs Regional Office in Atlanta, GA, at 1-888-442-4551 for an assessment of benefits which they may receive. Benefits will vary according to many criteria. *A period of six to ten weeks should be allowed for receipt of the Veterans Administration subsistence check.*

For more information about programs available at this institution, contact the campus Veterans Certifying Official in the MTCC Student Enrichment Center.

# SERVICES TO STUDENTS

The Student Services Office at McDowell Technical Community College is responsible for various types of student assistance: admissions, counseling, orientation, testing, supervision of and assistance in planning student activities, financial aid, placement of graduates, school publications and community-school relations.

## *Objectives*

McDowell Technical Community College, operating under the "Open-Door" admissions policy of the North Carolina Department of Community Colleges, is committed to taking prospective students and placing them in a program of study commensurate with their interests and abilities through counseling, guidance and testing. As a result of this commitment, the Student Services Office must respond to the needs of a diverse student population. The ultimate objective is total service to the student and to the community. Specifically, the objectives can be broken down as follow:

1. To provide information to prospective students and the community on opportunities available at McDowell Technical Community College.
2. To provide a counseling and testing program to assist prospective students in selecting a suitable program of study.
3. To orient new students to the college environment.
4. To provide professional counseling services to all students with scholastic, financial, personal and social problems.
5. To provide and assist in the development of a program of student activities.
6. To provide for the maintenance and utilization of student records.
7. To identify and utilize all community resources which can be used to the advantage of the student, school and community.

These objectives support the educational programs and the philosophy of McDowell Technical Community College so that each student can reach his/her fullest potential. The student is encouraged to seek the assistance available in the Office of Student Services.

## *Programs of Assistance*

### *Orientation*

At the beginning of each fall semester, an orientation program is held for new students to acquaint them with basic ideas, procedures, student support and learning resources, academic areas, administrative personnel and services of the College.

## ***Guidance and Counseling***

McDowell Technical Community College recognizes the diversity of students and programs of instruction represented at the College. It is of utmost importance that faculty, staff and students become aware of and utilize the services available to them. Instructors and academic advisors have the most direct contact with students; therefore, the identification of student needs and problems as well as referral to the Student Services Office when deemed necessary is vital to the educational process. Trained Counselors are available to all students during day and evening hours Monday through Thursday and day hours on Friday. The primary objectives of Guidance and Counseling services are:

- 1.To assist students in developing to maximum potential.
- 2.To assist students in achieving an understanding and acceptance of themselves.
- 3.To assist students in developing decision-making skills.

Services are available to assist students in coping with academic or vocational problems. Students are assisted according to their individual abilities, backgrounds and situations in life.

## ***Health Services***

The College does not have a health clinic to provide hospitalization or emergency services. The physical location of the College campus is easily accessible to hospital facilities in both Marion and Morganton. In the event of an emergency, EMS ambulances are available on a 24-hour schedule; phone 911.

First-aid supplies are available in all shop areas and in each campus building.

If a student becomes ill during class and is unable to go by him/herself to the first aid station, it is the responsibility of the individual's instructor to accompany the student there. If the student is unable to contact a parent, spouse or relative, then the instructor should contact the Student Services Office (or the Receptionist after 8:00 pm), who will contact the parent, spouse or relative.

In the event of serious accident or sickness, the following procedures should be followed:

1. Summon EMS ambulance service.
2. Make the person as comfortable as possible WITHOUT MOVING HER/HIM UNTIL HELP ARRIVES.
3. As soon as possible, notify the Safety Director at 652-0627 or the receptionist at extension 0.

**Note:** The College's *Comprehensive Safety Plan* is posted on the College website ([www.mcdowelltech.cc.nc.us](http://www.mcdowelltech.cc.nc.us)) under the heading *General Information*.

Any student enrolling in the College may complete a student medical (health) data form. This information may be used for the purpose of referral in the event of an emergency and to notify appropriate personnel of conditions which may affect the student's enrollment in a particular program.

### ***Student Enrichment Center***

The Student Enrichment Center provides a variety of testing, counseling and student support services. These include: placement testing, career assessments and personality inventories to explore student interests and aptitudes, career counseling services, tutorial assistance services, and support services for students with disabilities (including students with learning disabilities).

The Student Enrichment Center operates the MTCC Student Tutorial Program. Students interested in participating in the program as a tutor or those desiring tutorial assistance should contact the Center for further details.

Veterans' educational services and the campus contact for job placement are also located in the center.

All Student Enrichment Center services are free to the MTCC student. Walk-ins are accepted; however, appointments are encouraged to guarantee the student these services in a timely manner.

### ***Placement Tests***

In order to guarantee high program standards and student success, it is important that the academic abilities of students be equal to program entrance requirements. The "open door" policy allows all students the opportunity to obtain higher education; however, program entrance requirements must be met. Each new student, except as designated below, is required to take a placement test prior to enrolling in a curriculum at McDowell Technical Community College. These tests are administered in the Student Enrichment Center. Testing assures that students will be enrolled in classes appropriate to academic abilities. It is recommended that students take the test one to two semesters prior to enrollment to provide time to address any academic deficiencies. Student Enrichment Center staff will advise each student according to the results of his/her placement test.

The test or parts of the test may be waived under these circumstances:

- Submit official ASSET, Accuplacer or COMPASS scores taken within the last five years from another college.
- Submit an official transcript showing completion of college level English or math within the last 10 years at an accredited college with a grade of C or better.
- Submit proof of SAT writing score of 500 or above or ACT English score of 18 or Reading score of 22 or above taken within the last five years.
- Submit proof of SAT math score of 500 or above or ACT Math score



of 22 taken within the last five years.

- Submit NC High School transcript (beginning with the Class of 2013) meeting requirements in the NCCCS Multiple Measures Policy.

Exemptions for testing are not made for applicants seeking admission to the Associate Degree Nursing or the Practical Nursing Programs.

### ***About the Test***

The college uses the following tests for placement purposes:

- Accuplacer (NCDAP) North Carolina Diagnostic and Placement Test
- Computer Adaptive Placement, Assessment, and Support System (COMPASS) Reading.

COMPASS is a computerized adaptive test and is not timed. This test is for reading placement. Accuplacer (NCDAP), the North Carolina Diagnostic and Placement Test, is made up of two major sections: Mathematics and English and Reading. It is an untimed test, except for the essay portion. There is currently no fee for the tests.

Entrance requirements vary for individual courses and programs. The sections required are based on the chosen curriculum. Students will receive the test results immediately. Results from tests do not affect eligibility for admission, but developmental courses may be required as part of the student's curriculum if the test indicates the need. Prior to taking the test, applicants are encouraged to obtain the Sample Test Questions from the Student Enrichment Center or the NC Works Career Center. They can also be accessed on the MTCC website under Placement Testing. After completing the practice test samples an applicant may find it helpful to review some of the test subject matter before attempting the test. A placement test review class is offered at the NC Works Career Center approximately once a semester.

For placement into MAT 271 and Calculus I, see Student Enrichment staff.

### ***Placement Testing Rules***

- Must have an application on file with Student Services.
- Must make an appointment with the Student Enrichment Center. Discuss special needs or concerns related to testing at that time. Persons with disabilities may request special accommodations and need to do so when scheduling the testing appointment to allow adequate time for needed arrangements to be made. Official documentation verifying the disability and the need for special accommodations must be submitted prior to testing. Special accommodations include, but are not limited to, braille, large print materials and tests on audiotape.

- Must bring social security number, MTCC Student Identification Number and have a picture ID. Pencils and scrap paper will be provided.
- Placement test scores are considered current for five years. If you have not attended MTCC in five years or more, new placement test scores are required. Returning students who have successfully completed all developmental courses within the last 10 years will not be required to retest unless there has been a change of major which requires higher levels of math or English.
- Retesting will not be permitted unless it is determined by the Director of the Student Enrichment Center or the Vice President for Learning and Student Services that the test scores are invalid or the student provides evidence that additional academic preparation has been completed.

### ***Developmental Studies***

McDowell Technical Community College has a Developmental Studies program designed to identify and assist students with academic weaknesses. Students scoring below proficiency levels determined by the College are required to enroll in the Developmental courses appropriate for the identified weakness.

Required Developmental courses are prerequisites for certain other courses and must be taken.

These courses may also be taken by others, at the student's initiative, or on recommendation of a faculty member.

### ***Academic Resource Center (ARC)***

The Academic Resource Center (ARC) serves as a common computer lab for all students. It provides students free access to computers and the internet in order to fulfill technological requirements in their courses at MTCC. Students may bring their own laptops to the ARC where they will be able to find power outlets and access wireless internet.

The ARC also provides free tutoring in basic math and English topics during specified times each semester. Students do not need to set up an appointment to receive this free tutoring, but they do need to check on the times of availability each semester. Other resources available to students in the ARC include math DVDs, textbook software, and remedial software that can enhance student learning.

### ***Career Planning and Development***

Educational objectives generally are pursued by students for the purpose of preparing themselves for the world of work or for job mobility. The function of all personnel involved in the educational process is to provide ways and means to assist the student in career planning and individual development. Please contact the Student Enrichment Center for career assessments and exploration.

### ***Job Placement***

The College offers job placement assistance through the Student Enrichment Center and the NC Works Career Center. A job placement counselor is available for the purposes of referral to the NC Works Career Center. Although employment cannot be guaranteed by McDowell Technical Community College, every effort is made to notify students of job opportunities and assist them in securing positions of employment. The NC Works Career Center provides resume preparation, counseling, and assists students in securing employment. Up-to-date job openings are posted and available on-line through resources provided at the NC Works Career Center. Short-term employability skills classes are available to those seeking employment.

Students interested in full or part-time jobs are asked to complete a NC Works Customer Profile and have a conference with NC Works staff.

Students are also encouraged to utilize the services of the North Carolina Employment Security Commission located on Baldwin Avenue at NC Works Career Center in Marion, NC for job placement assistance.

### ***Campus Security***

The Security office is located just inside the front entrance of the Administration Building. Their office is staffed with four retired police officers under the direction of A. Michael Powell. They are available to serve you with whatever security situation that arises. They can be reached immediately by telephone at cell number 442-1084, or at the office line, 652-0673. Otherwise, dial "0" on our local land line. Please feel free to call Security staff for any security needs you may have. They are there to serve you.

# STUDENT-ORIENTED POLICIES & PROCEDURES

## *Diversity and Non-Discrimination*

### *Diversity*

McDowell Technical Community College values diversity and desires to create a situation where all persons, regardless of race, sex, age, national origin, religion, disability or other factors, may realize their fullest potential. To this end, the college prohibits discrimination of all kinds in programs, services and employment. Our policies are also located in the Employee Handbook with copies placed in the MTCC Library.

### *Non-Discrimination Policy*

It is the policy of McDowell Technical Community College that no individual shall, on the basis of sex, age, religion, race, color, national/ethnic origin, disability or political affiliation, be excluded from participation in, be denied admission to or the benefits of, or be subjected to discrimination in his/her education program, as required by Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 (ADA). Any student who feels he/she has been discriminated against should contact the Director of the Student Enrichment Center, MTCC, 54 College Drive, Marion, NC 28752 Phone (828)652-0631. In addition, he or she may consult with or write to the Office for Civil Rights, District of Columbia Office, U.S. Department of Education, 1100 Pennsylvania Avenue., NW, Room 316, P.O. Box 14620, Washington DC 20044-4620.(202)786-0500

### *Provisions for Persons With Disability*

McDowell Technical Community College provides equal access to education for persons with disabilities in compliance with Section 504 of the Rehabilitation Act and Americans with Disabilities Act. It is the responsibility of the student to make his or her disability known and to request academic adjustments of modifications each semester. The Director of the Student Enrichment Center advises and assists in securing academic adjustments, support services and other provisions for qualified students with disabilities. Request for modifications, adjustments or accommodations should be made 30 working days before events or activities and submitted to the Director of the Student Enrichment Center. Every reasonable effort will be made to make reasonable adjustments.

In order to establish the student's eligibility for services, documentation of disability is required of all students who request academic accommodations or

modifications. Documentation should be submitted to the Director of the Student Enrichment Center and may include results of medical or psychological tests or other professional evaluations that verify the existence of an ADA-recognized disability. Students with learning disabilities should provide a current psychological evaluation that states the specific learning disability and the functional limitation within the learning environment. All documentation and records will be maintained in a confidential manner as outlined in the Family Rights and Privacy Act of 1974.

College procedures for application and admission apply to students with disabilities. For additional information, contact the Director of the Student Enrichment Center.

### ***Student Grievance Procedure***

It is the policy of McDowell Technical Community College to provide all students with the means to seek resolution to any problem affecting their enrollment. The primary objective of a grievance procedure is to ensure that student rights are protected. Further, it is essential that the student be given adequate opportunity to bring valid complaints and problems to the attention of the College with the assurance that student's grievances will be handled fairly, rapidly, and in a non-threatening atmosphere.

A grievance is defined as the dissatisfaction that occurs when a student has reason to believe a condition or a situation, or an action affecting the individual is unjust, inequitable, and/or a hindrance to effective performance. A grievable action is an action that is in violation of written campus policies or procedures or constitutes arbitrary, capricious, or unequal application of written campus policies or procedures.

In implementing a grievance policy, the College emphasizes the importance of rectifying any issues before utilizing the grievance policy. All students and faculty members, administrators, or staff members have an obligation to make every effort to resolve problems fairly and informally so that they do not become sources of grievances to be pursued formally through the grievance procedure. However, the College realizes that all problems cannot be corrected with an informal resolution. The procedure is not intended to initiate disciplinary action against a student or a member of the faculty, staff, or administration; or to alter college policy. It is important to note that all matters will be handled in a professional manner and parties will be treated professionally and fairly with no retaliation before, during and after the grievance procedure.

#### ***Procedures***

A formal complaint may be filed any time by students who believe that a personal right has been violated. The following procedure is established to provide prompt and equitable resolution as they relate to claims of discrimination based on age, sex, (including sexual harassment) religion, race, color, national/ethnic origin, disability or political affiliation, or have been

excluded from participation in, be denied admission to or the benefits of, or be subjected to discrimination in his/her education program. (Because of the private and sensitive nature of certain incidents, an aggrieved student may choose a third party mediator to help resolve complaints on an informal basis.)

The following outlines the grievance procedure:

1. Students with concerns should first discuss their problem with the faculty or staff member(s) who are involved. (A third party may be present.) All parties should attempt to resolve the issue in discussion.
2. If the issue is not resolved, the student must talk with the faculty/staff member's immediate supervisor within ten working days, who will attempt to resolve the complaint.
3. In the event that the grievance cannot be resolved within the department, students should submit a written grievance to the Vice President for Learning and Student Services within thirty working days after completion of step # two (2). The complaint should specify the time, place, and nature of the incident that resulted in the complaint. (Forms are available in the Student Services Office and on the MTCC website [www.mcdowelltech.edu](http://www.mcdowelltech.edu))
4. Copies of the complaint will be forwarded to the appropriate administrator of the area involved.
5. Within ten working days, the Vice President for Learning and Student Services will contact all parties involved (including third parties) and request a meeting.
6. If the situation cannot be resolved during the meeting in Step # 5, the Vice President for Learning and Student Services will establish the Grievance Committee within twenty working days. The student or employee may have persons appear on his/her behalf provided that a list of names is given to the Chairperson of the Grievance Committee five school days prior to the meeting. (The Committee with guidance from the Chair [who will receive appropriate training for the procedure] will investigate and evaluate all information provided. A period of ten days is allowed for this process.) The student or employee portion of the Grievance Committee meeting shall be taped to ensure that a full and accurate record of the information presented is available to the student or employee and committee members and to facilitate the writing of the minutes of the meeting. Copies of the tape may be made for the student at cost. The discussion following the student part of the meeting is considered a closed session.

The Grievance Committee shall consist of:

1. Chairperson (non-voting member).
2. Student Services administrator. This person will serve as student advocate. (Non-voting member).
3. Two faculty members, at least one being from the same department as the aggrieved student.

4. Two students: the President of the SGA and one other student elected by the SGA.
5. One administrator: appointed by the College President.
7. Five (5) voting members are required before a vote can be taken. The decision of the Grievance Committee shall be by majority vote. Within ten (10) school days, the Grievance Committee shall submit its findings of facts and recommendations to the Vice President for Learning and Student Services. This will serve as the final decision. The Vice President for Learning and Students Services will make the student aware (in writing) within ten (10) days the decision of the Grievance Committee.
8. If the Grievant is not satisfied with the decision of the Grievance Committee, he/she may appeal the decision to the President. The appeal must be made to the President in writing within ten working days. The President will review all procedures and meet with the student.
9. The President will render a decision within ten working days. In all cases, the President's decision shall serve as the final governing authority of the College.

### ***Equal Opportunity/Affirmative Action Institution***

McDowell Technical Community College is an Equal Opportunity/Affirmative Action Institution in compliance with all policies on non-discrimination. The College has an Affirmative Action Plan. The Affirmative Action Officer for McDowell Technical Community College is the VP for Finance and Administration. The contact number is (828) 652-0627.

## ***Code of Student Conduct***

### ***Proper Conduct***

The College has a responsibility to ensure students an optimum opportunity for learning. That responsibility includes providing a healthful and safe environment, protecting property and records, and supporting the laws of the community, state and nation. In order to maintain an appropriate environment for study and learning, the College expects students to conduct themselves as mature, responsible adults.

### ***Dismissal for Improper Conduct***

Personal conduct that detracts from the educational process will not be tolerated. The College reserves the right to dismiss any student who disrupts the learning environment.

## ***Policy on Publications- Classroom use of equipment/materials/supplies***

McDowell Technical Community College strives to maintain up-to-date computers, printers, supplies and materials to be utilized by instructors and students.

MTCC's equipment, including computers, printers, laboratory equipment, shop equipment, and supplies and materials are to be used for curriculum-coursework projects only.

Any equipment/materials/supplies utilized by students or staff for personal use or for monetary gain are prohibited.

Any work produced must have the approval of the instructor and/or administration to be displayed within any area on campus.

Any student observed not following the above regulations may be subject to suspension or dismissal from the College for the semester or longer.

## ***Dress Code Policy for Students***

The following expectations for student dress have been established and approved by the McDowell Technical Community College Administration and the McDowell Technical Community College Board of Trustees.

The following dress code shall be observed by all McDowell Technical Community College students:

1. Any clothing or accessory that is deemed offensive causing a distraction and hampering the learning environment is prohibited.
2. Clothing and accessories must be appropriate to the classroom/lab setting to provide a safe learning environment.
3. Footwear is required and must be safe and appropriate for classroom/lab activities.
4. Jewelry and accessories that are safety hazards or could be used as weapons are prohibited.

The President, Vice President of Learning and Student Services, Dean of Health Sciences or Dean of Curriculum may allow exceptions to the dress code only on special occasions, such as Student Government activities. Further dress requirements may be prescribed by the above persons for certain classes, such as physical education, vocational, and health science classes.

Violations of the dress code procedures and regulations shall result in disciplinary action as follows:

1st violation: Verbal warning by instructor. Instructor will document the



offense and forward a referral to the appropriate Dean and Vice President for Learning and Student Services for the record.

2nd violation: After speaking with the student and the situation cannot be resolved, the instructor will present an official letter stating concerns and suggested actions to the Dean of Curriculum or Dean of Health Science, the Vice President for Learning and Student Services and the President

3rd violation: Administration will investigate the situation. Depending on the results of the investigation, the student will be subject to suspension and/or dismissal from the college for the duration of the semester or longer.

### ***Basis for Suspension or Expulsion; Types of Inappropriate Conduct***

Expulsion, suspension from the College or a lesser sanction may result from the commission of any of the following offenses:

1. Academic Dishonesty (Plagiarism) - Students will not give or receive help during tests; will not submit papers or reports (that are supposed to be original work) which are not entirely their own; and will not cite source materials improperly. Sanctions will include receipt of a failing grade in applicable coursework and disciplinary probation for a first offense. The instructor of the course in which the infraction occurred, or the Dean of Curriculum Programs or the Dean of Health Sciences will deal with this offense.
2. Willfully representing the College or a student organization without that group's permission or representing improperly the identity of any other individual member of the campus community.
3. Violation of the terms of disciplinary probation or of any College regulation during the period of probation.
4. Lewd or indecent conduct, including public physical and/or verbal actions and distribution of obscene or libelous written materials.
5. Possession, distribution or use of alcoholic beverages/controlled substances or being in a state of intoxication on the College campus or during a college-sponsored activity.
6. Possession, use or distribution of any narcotic drugs, amphetamines, barbiturates or similar agents except as expressly permitted by law. ("Narcotic" and "dangerous drugs" are as defined by agencies of the State of North Carolina and/or the United States Government.) Any influence which may be attributed to the use of drugs or alcoholic beverages shall not in any way limit the responsibility of the individual for the consequences of his/her actions.
7. Gambling on the college campus.
8. Theft from, misuse of or damage to College property; theft of or damage to property of a member of the College community or a campus

visitor, whether on College premises or at a College function. Unauthorized entry upon the property of the College, including entry after closing hours, unauthorized use of a key or entry into a restricted area, is forbidden.

9. Mental or physical abuse (hazing) of any person on College premises, or at College sponsored or supervised functions; conduct which threatens or endangers the health or safety of any such persons.
10. Forgery, alteration or misuse of College documents, records or instruments of identification with intent to deceive.
11. Intentional obstruction or disruption of teaching, research, administration, disciplinary proceedings or other College activities, including public service functions and other duly authorized activities on College premises.
12. Occupation or seizure in any manner of College property, a College facility or any portion thereof for a use inconsistent with prescribed, customary or authorized use; preventing, obstructing or substantially interfering with the use of a facility or a portion thereof by those persons to whom the space is assigned.
13. Participating in or conducting an assembly, demonstration or gathering in a manner which threatens or causes injury to persons or property; which interferes with free access of College facilities; which is harmful, obstructive or disruptive to the educational process or institutional functions of the College; or remaining at the scene of such an assembly after being asked to leave by a representative of Student Services, the Business Office, Educational Programs Office, or the President's Office.
14. Possession or use of a firearm, incendiary device or explosive, except in connection with a College approved activity. This also includes unauthorized use of any instrument designed to inflict serious bodily injury to any person.
15. Setting off a fire alarm or using or tampering with any fire- safety equipment, except with reasonable belief in the need for such alarm or equipment.
16. Failure to comply with instructions of College officials acting in performance of their duties.
17. Smoking is limited to designated smoking areas . Please use ash and trash receptacles to dispose of litter. The use of tobacco products in any form is not permitted inside any building owned or leased by the College or in College owned vehicles. Students who violate this policy will receive a verbal warning by College staff for the first offense. Continual use of tobacco products will be considered a violation of this policy and appropriate disciplinary action will be taken.
18. The presence of animals on campus is forbidden, except in the case of seeing-eye dogs.
19. Violation of a local, state or federal criminal law on College premises which adversely affects the College community's pursuit of its proper educational purposes.

### ***Levels of Discipline and Appeal: Policy and Procedure***

Members of the instructional staff of the College are empowered to impose upon students those sanctions within his or her jurisdiction or to recommend to appropriate administrators sanctions of a greater nature. The following disciplinary actions are authorized for use by faculty and administrators of the College:

1. Oral warning.
2. Written warning.
3. Restriction, in writing, specifying the deprivation of privilege or other terms of restriction.
4. Disciplinary probation, the conditions of which are expressed in writing, with an acknowledgment of notice signed by the individual placed on probation.
5. Oral suspension and immediate exclusion from specific institution facilities or from all institution facilities for a period not to exceed three school days unless superseded by suspension with written notice stating cause.
6. Suspension with written notice stating cause and specifying any conditions or terms of the suspension. Suspension with written notice shall be exercised only by the President, or in his absence, by his designated representative. The length of suspension will be identified in any written notice provided to the student.
7. Expulsion or dismissal for cause. This disciplinary action shall be taken only with approval of the Board of Trustees by formal resolution of motion adopted. Prior thereto, the individual shall be in a status of suspension with written notice stating cause. The Board of Trustees shall notify the individual, who shall be offered a full and fair hearing before the Board of Trustees or an impartial panel constituting a quorum of the Board, and shall have the right to be represented by counsel for defense, to bring witnesses for his defense, to confront, examine and cross-examine the witnesses against him, and to be provided at least five days before such hearing with a detailed statement of the charges against him and copies of documents which may be presented as evidence against him. A record of hearing proceedings shall be kept.

## ***Student Records: Confidentiality and Release***

McDowell Technical Community College recognizes the importance of exercising responsibility in the maintenance and security of all student records. In order to meet that responsibility and the requirements of the Family Education Rights and Privacy Act of 1974, as enacted by Congress, the College makes the following information known:

- I. Types of educational records and information which directly relate to students and which are maintained by the College, such as:
  - A. Permanent Student Files: Transcripts of work at other institutions, health forms or records, recommendation letters, placement test profiles, application and residency forms.
  - B. Transcripts: Academic record of all courses taken while enrolled at the College.
  - C. Student Financial Aid Records.
- II. The official responsible for the maintenance of each type of record, the persons who have access to those records and the purpose for which they have access:
  - A. The VP for Learning and Student Services is the individual responsible for the maintenance of student files and transcripts.
  - B. The permanent clerical staff in the Student Services Office have access to the files for maintenance purposes.
  - C. The Student Services counselors have access to the files for the purpose of academic advisement.
  - D. Other authorized College personnel have access whenever the nature of their responsibility requires access to student records or information contained therein.
  - E. Only Financial Aid Staff may access student financial aid records.
- III. The policy of the College for reviewing, maintaining, transcribing and expunging records:
  - A. As a matter of policy, the institution destroys all student records except the official transcript five (5) years after the student leaves the College.
  - B. Parents and legal guardians of independent students 18 years of age or older do not have the right to view student records, grades, test scores, etc. unless written consent of the student is received. Parents of dependent students as defined in section 152 of the Internal Revenue Code of 1954 may review student records without the written consent of the student.
  - C. Requests for student transcripts will be honored for students with no outstanding debt to the College.
  - D. Student's records and/or official transcript will be forwarded only upon the written request of the student.

- E. Whenever it is requested that grades or records of students be released to faculty or to any agency, written permission must be obtained from the student except as outlined in II preceding. Forms are available in the Student Services Office for this purpose.
  - F. Unless otherwise requested by the student, instructors may post final exam and end of course grades provided a numerical code is used.
- IV. The procedures established by the College providing access to student records:
- A. Upon receipt of a written request from the student, the VP for Learning and Student Services shall within 45 days:
    - 1. Allow the student to inspect and review the permanent file and transcript.
    - 2. Provide the student with copies of the material, if the student so desires.
    - 3. Interpret the records to the student.
    - 4. Allow the student to challenge, in writing, the content of the files. Upon receipt of the challenge, the VP for Learning and Student Services shall conduct a hearing at which time any materials found to be inappropriate or misleading will be corrected. Students shall also have the opportunity to insert into their files any written explanations they deem appropriate.
  - B. McDowell Technical Community College considers the following "Directory Information," and will release such information unless the student notifies the VP for Learning and Student Services in writing during the first three class days of each semester:
    - 1. Name.
    - 2. Program of study.
    - 3. Dates of attendance.
    - 4. Degrees and awards received.

# STUDENT ACTIVITIES

## *Student Government Association*

On February 5, 1981, the Board of Trustees of McDowell Technical Community College approved granting the existing Student Advisory Council full status as a Student Government Association. The duties and responsibilities of the SGA are to serve in an advisory capacity to the President, Administration and Faculty on matters pertaining to student interest and welfare. Participation in SGA is an important way for students to have input into decision-making at the college. The MTCC Student Government Association actively participates in and supports the state student government organization known as N4CSGA. The academic, educational, career and social needs and concerns of the students at MTCC are addressed and given due consideration through this association both at the local level and state level. The president of the SGA serves as an ex-officio member of the Board of Trustees of MTCC.

Any curriculum student who is attending at least half-time and has at least a 2.0 GPA is eligible to be a voting member of the SGA. Non-SGA members who wish to have input into college decisions or address issues which are of concern to themselves or others should contact an SGA member or the SGA Advisor to express those concerns. To request a time to speak before members of the Student Government Association, a student should contact the SGA advisor or an SGA officer to schedule time on the SGA meeting agenda. The SGA advisor can provide additional information about how to become an SGA member, more complete information about SGA activities, or a list of SGA members and officers. The staff member from Student Services who is designated as SGA advisor acts only to guide and represent staff and administrative viewpoints. The SGA Advisor is located in the Student Enrichment Center.

The Student Government Association sponsors various events, including Spring Fling, Summer Splash and Fall Festival. All curriculum students are invited to participate free of charge; these activities are paid for through student activity fees at the beginning of each semester. Students may bring a guest to these events for a nominal charge. This charge covers food for the event.

Occasionally, the Student Government Association will sponsor dances or other events. Announcements of these events will be posted or presented in class. A nominal fee may be charged for guests at these events.

Students who wish to form a new club or organization on campus must seek official recognition through the Student Government Association.

## *Phi Theta Kappa National Honor Society-Beta Zeta Lambda Chapter*

A chapter of the Phi Theta Kappa Honor Society was organized at McDowell Tech in 1998. The purpose of Phi Theta Kappa is to recognize and encourage scholarship among associate degree students. To achieve this purpose, Phi Theta Kappa provides opportunities for the development of leadership and service, for an intellectual climate to exchange ideas and ideals, for lively fellowship for scholars, and for stimulation of interest in continuing academic excellence. The

Society is recognized by the American Association of Community Colleges as the official general honor society for two-year colleges.

Each fall and spring semester, the Beta Zeta Lambda chapter may extend an invitation to MTCC students who have been recommended by their advisors and have completed at least 12 credit hours of course work required for an associate degree and who have a GPA of 3.5 or higher.

### ***National Technical Honor Society***

McDowell Technical Community College faculty and staff organized a chapter of the National Technical Honor Society during the 2000-2001 academic year. NTHS, as it is abbreviated, began in 1984 to reward excellence in workforce education. It is an internationally recognized and proven program with over 1,500 member schools and colleges. Student membership in NTHS is available to those who seek to uphold critical workplace values and high levels of achievement. Once yearly, NTHS may extend an invitation to MTCC students who have completed at least 6 credit hours of course work required for their program of study, have achieved a GPA of at least 3.0, and have been recommended by their faculty advisor.

### ***Student Publications***

McDowell Technical Community College recognizes the value of providing opportunities for students and faculty to engage in journalistic endeavors. Under the auspices of the MTCC administration and Student Government Association, manuals, newspapers and other periodicals may be published as sufficient student interest develops.

### ***Who's Who***

McDowell Technical Community College participates in *Who's Who Among Students in American Junior Colleges*. Outstanding students are nominated by faculty members.

### ***North Carolina Community College Student Leadership Institute***

McDowell Technical Community College participates in Student Leadership Institute. Outstanding students are nominated by faculty/staff members.

# CONTINUING EDUCATION

McDowell Technical Community College, through the Department of Continuing Education, offers life-long learning opportunities to any adult, regardless of his/her educational background. A wide variety of programs are offered to provide opportunities for individuals to develop to their fullest potential whatever vocational, intellectual or cultural talents they wish.

Courses are designed to provide educational opportunities to prepare individuals for entry into an occupation, to retrain or upgrade the skills of those who are already employed, or to provide cultural and general interest courses for self-improvement. These non-curriculum classes may vary in length.

Continuing Education courses may be organized on or off campus, day or night, based upon the interest shown by the community, the availability of competent instructors, and the limitations of available equipment, space, and funds.

## ***Admission Requirements***

In general, all Continuing Education courses are open for enrollment to persons 18 years of age or older, or to those whose high school graduating class has graduated. However, because some specialty and advanced courses may be more difficult and require a greater degree of preparation, potential enrollees should be aware of the nature of the course requirements to determine their possible success in those courses. In certain specialized courses, ie:

- Advanced Technology Training
- Apprenticeship Training
- Fire Services Training
- Law Enforcement Training
- Management Development Training
- New & Expanding Industrial Training

potential students must be employed by or recommended by one of the requesting training agencies.

## ***Course Descriptions/Schedules***

Specific course descriptions are provided in course schedules or may be furnished upon request. A course schedule is published each semester. Brochures are placed in appropriate areas throughout the county and courses may be advertised in local newspapers or on local radio stations.

## ***Registration and Fees***

Adults should notify the College by phone, letter or personal visit to pre-register for each class. Official registration will be held on a designated pre-registration day or will be on the first class meeting. Registration fees for occupational, practical skills, avocational, and academic courses range from \$50-



65 per course, depending on course length. Self-supporting class fees will vary, depending on the course. Registration fees for community service classes range from \$5-30 per course, depending on course length.

\*Senior Citizens, 65 years of age and older, are fee exempt, except for classes that are self-supporting.

Registration fees for Continuing Education courses are set by the N.C. Legislature, and are subject to change. Fees are non-refundable, except when the class fails to materialize. An extra charge may be necessary in some courses for books, materials, and class supplies. Books and supplies may be purchased in the College Bookstore. When classes meet at neighborhood locations, the College Bookstore make arrangements for books to be purchased at the class meeting place.

### ***Class Locations***

A number of Continuing Education classes are held on campus. Classes are conducted throughout McDowell County wherever a suitable meeting place can be arranged. Classes are organized in any community whenever a sufficient number of prospective class members indicate an interest.

### ***Attendance***

A minimum enrollment of 10 persons is needed to conduct a class. Adults are expected to attend class regularly. Insufficient enrollment may result in cancellation of the class.

### ***Certificates***

College credit is not granted for completion of courses in the Department of Continuing Education. However, certificates are awarded to students who successfully complete course requirements in classes which carry CEU credits. Licenses, diplomas, or other forms of recognition are awarded by certain agencies outside the College upon successful completion of specially designed courses. Certificates will not be released to students who have any outstanding debts to the college.

### ***Continuing Education Units (CEU)***

The Continuing Education Department will award Continuing Education Units (CEU's) for the successful completion of appropriate courses. The CEU was designed to recognize and record individual and institutional participation in non-traditional studies and special activities. The CEU is a recognized recording method for substantive non-credit learning experiences. A CEU is defined as "10 hours of participation in an organized Continuing Education experience under responsible sponsorship and qualified instruction or direction."

# PROGRAMS OFFERED IN CONTINUING EDUCATION

## *General Adult and Community Services*

The College is always concerned with identifying community potentials and community needs, drawing together resources at the College and other agencies to create new educational opportunities. Programs afford the opportunity for individuals to gain personal satisfaction through self-advancement. This includes opportunities to grow intellectually, to develop creative skills or talent, to learn hobby or leisure time activities, and to gain civic and cultural awareness. The general types of programs offered are:

Academic Courses  
Personal Business Education  
Citizenship Development Courses  
Homemaking Education  
Family Life Programs

Consumer Education  
Health and Safety Education  
Language Arts Education  
Creative Arts Education  
Music/Dance Education

## *Occupational and Continuing Education Programs*

The college offers a number of Occupational and Continuing Education Services, including Teleconference Workshops, Computer Training, and a variety of specialized programs designed to enhance an individual's employability, to help him or her learn a new career, to establish a pattern of growth and stability in business and industry, and to help individuals stay abreast of trends in their chosen field. These programs may be subdivided as follows:

### *Small Business Center*

McDowell Technical Community College's Small Business Center (SBC) began operations on September 6, 1988. The center was established to provide McDowell County with its first comprehensive small business development and assistance program.

The mission of the SBC is to train, counsel, develop and provide needed services for small businesses and their owners. As part of its provision of services, the SBC will attempt:

- To operate as an information service on small business issues and concerns.

- To coordinate the referral of small business owners/managers to acquire legal sources for in-depth assistance, counseling and financial assistance.
- To assist in the preparation of business plans, loan packages and research projects related to small business growth and operation.
- To provide limited tax and accounting services for sole proprietorship and partnership businesses.
- To seek out information and assist in loan package preparation involving Federal and State financing programs for small business owners.
- To deliver one-on-one business counseling.
- To assist small business owners with marketing and management problems.
- To offer seminars/workshops on timely topics of interest to the small business owner.
- To offer a resource library of books and videos to be checked out by clients at no charge.

### ***Customized Training Program***

The Customized Training Program supports the economic efforts of the State by providing education and training opportunities for eligible businesses and industries. Amended in 2008, this program combines the New and Expanding Industry Training Program and the Customized Industry Training Program to more effectively respond to business and industry. The Customized Industry Training Program also includes the former Focused Industry Training Program and shall offer programs and training services to assist new and existing business and industry to remain productive, profitable, and within the State.

The purpose of the Customized Training Program is to provide customized training assistance in support of full-time production and direct customer service positions created in the State of North Carolina, thereby enhancing the growth potential of companies located in the state while simultaneously preparing North Carolina's workforce with the skills essential to successful employment in emerging industries.

### ***Occupational Industry Training***

McDowell Technical Community College conducts in-plant courses to assist manufacturing, service and/or governmental organizations with in-service training of their employees. In-plant training is defined as an occupational extension course that meets the following conditions:

- 1) Training shall occur in the facilities or at the sites in which the organization normally operates.
- 2) Enrollment shall be limited to the employees of the organization in which the training occurs; trainees may be newly-hired employees who need entry level skills or existing employees who, due to documented changes in job content, need up-grading or retraining.

- 3) Training may partially be conducted at the employee's assigned work station during normal working hours.
- 4) Training shall be directly related to job skills.

Examples of types of training offered to industry include: Statistical Process Control, Total Quality Management, Industrial Sewing, Weaving, Mold Line Training, Forklift Licensure, Blueprint Reading, Measuring Instruments, Metric System, Mathematics, Hydraulics and Pneumatics, Maintenance Mechanics, Industrial Safety, Fire Brigade Training, Upholstery, Technical Writing, Communication Skills, Furniture Making, Furniture Framing, Fixer Training, etc.

Companies officials who desire this type of training for their employees should contact MTCC for more information.

### ***Management Development Training***

MTCC offers several different training options concerning Management Development. The college has certified instructors available in areas such as: McGraw-Hill Supervision Training, Zenger Miller Management Training, Deming Quality Control Training and the latest innovations in Total Quality Management.

### ***Apprenticeship Training***

If a system of "learning by doing" under the guidance of "master craftsmen" has endured for over 4,000 years, the system undoubtedly contains basic qualitative factors for our contemporary society. These factors should be identified clearly and implemented properly where such training is needed.

North Carolina is requiring increasingly greater numbers of highly trained men and women to keep pace with our rapidly changing economy. New demands on the abilities and experience of workers, who need wider training because of changing methods, materials and technology, call for a new look into educational methods. Apprenticeship is an effective means for a young person to develop formal skills. As such, it makes a major contribution to our state's economic growth.

McDowell Technical Community College can help train an employed apprentice by making available necessary courses, instructors and classrooms for supplemental related instruction.

The main objective for the Apprenticeship Program is to combine 4,000 to 8,000 hours of on-the-job training with a program of formal related instruction through MTCC. The major objective of the related instruction is to teach an apprentice that part of the technical related information pertaining to his/her trade which can best be taught in the classroom. Other objectives include: development of an ability to apply technical related information to his or her trade, evolvement of proper attitudes and human

relations, and adjustment to social problems encountered in the world of work. The North Carolina Apprentice Council and Department of Labor have mandated that related training will be required of every apprentice.

MTCC has some equivalent courses in the curriculum program that may offer the apprentice an opportunity to acquire an Associate Degree at the same time they are completing the Apprenticeship Program.

## ***Emergency Services Training***

### **Fire Service Training**

MTCC provides a wide range of fire training opportunities to meet the continuing education training needs of area firefighters. The College offers all course and training requirements to obtain LEVEL II Certification, Instructor Certification, Hazardous Material Awareness Level and Hazardous Material Operational Level. The College also holds an Annual Fire and Rescue College. In total, the College offers over 150 courses annually in virtually every area of Fire Training.

### **Rescue Training**

MTCC provides a wide range of training opportunities to meet the continuing education training requirements of Rescue Personnel. The college offers Rescue Technician (RT) Certification for area rescue personnel. The Annual Fire and Rescue College also provides courses in areas such as Vehicle Extrication, Search Procedures, Man-Tracking, Hazardous Materials, etc.

### **Emergency Medical Services Training**

MTCC provides a wide range of training opportunities to meet the needs of area Emergency Medical Personnel. The college provides continuing education training as well as inservice training opportunities weekly to meet local need. Advanced training opportunities are also offered including: Basic Cardiac Life Support, Advanced Cardiac Life Support, Pediatric Advanced Life Support, and Vehicle Operator Training. The College offers the following levels of Emergency Services Training: EMT, EMT-Intermediate, and EMT-Paramedic. In addition to these programs, the college offers over 100 courses annually in the areas of CPR Certification, First Aid Certification, CPR Recertification and Communicable Disease Training to help local government and industry leaders meet OSHA requirements.

### **Law Enforcement Training**

MTCC provides a number of training opportunities to local Law Enforcement personnel. Training classes are provided to city, county and Department of Corrections officers to meet continuing education needs. The college currently offers training opportunities in the following areas: Firearms Recertification, Breathalyzer Training, Unarmed Self-Defense Training, Basic Law Enforcement Training (see Curriculum Program description) and Specialized Training.

## ***College and Career Readiness Programs***

All CCR classes have open enrollment. A student may register at any orientation during the semester and attend the class which is most convenient to their schedule. All classes are offered free of charge and materials will be provided. The goals of instruction are to improve basic skills in reading, writing and math which will lead to successful completion of the GED test, and postsecondary education or employment..

### ***Adult Basic Education (ABE)***

ABE classes provide instruction for adults who want to improve their skills in reading, writing, spelling, and math. Instructors are available to help those individuals who score below ninth grade level in any subject. Special accommodations are made for beginning readers. Under special circumstances, individuals with high school diplomas who need to review their skills may enroll in an ABE class.

### ***High School Equivalency***

A pre-test is given to all students enrolled in a high school equivalency preparation class. The scores on this test are a good indicator of how successful a person will be at passing an Official GED test. The high school equivalency exam is currently composed of five separate examinations in Writing, Social Studies, Science, Literature and Arts, and Mathematics. All questions are multiple choice, except for one part of the writing test which asks the examinees to write an essay.

### ***English as a Second Language (ESL)***

Written and spoken English, math, reading and other subjects are currently offered at the JobLink Career Center and on at an off campus site to students who first language is not English. Classes are offered at several sites throughout the county. Instructors are trained to work with students who need assistance completing forms such as immigration papers, tax and insurance documents, or job applications; obtaining driver's license, health and financial services; and obtaining practical skills such as how to speak to a child's teacher, how to recognize road signs, and solving housing needs.

All classes are offered at a variety of times and locations. For more information, call MTCC at 652-6021 or check the listing of current classes in the MTCC Schedule of Classes published each semester. Those interested in attending an orientation can sign up by calling 659-6001.

## ***Human Resources Development (HRD)***

The purpose of the Human Resources Development (HRD) program is to educate and train individuals for success in the workplace. The HRD program focuses on the development of basic workplace skills by providing short-term employability skills training to unemployed and underemployed adults. Typical groups targeted for HRD training include, but are not limited to the following: unemployed insurance claimants, JobLink customers, public assistance recipients, dislocated workers, out-of-school youth, individuals in career/job transition, and probationers.

All classes in the HRD program are offered at no cost to unemployed individuals seeking employment and underemployed individuals who are working and meet special income guidelines. If you are not in either category, the usual occupational extension fee will apply. Classes are offered at the JobLink Career Center and scheduled on a continuous basis throughout the year to meet the needs of the students who enroll. For more information, call the HRD office at 659-6001, ext. 140.

### **HRD Employability Keyboarding**

Gain basic knowledge of the keyboard to facilitate transition into advanced keyboarding, introductory computer or office technology classes. Explore careers and understand the importance of keyboarding/data entry skills in employment.

### **HRD Career Planning and Assessment**

Find out about you, search for the ideal career, and get in touch with the resources to reach your goal.

### **HRD Career Readiness Certificate (CRC) Prep**

Earn a North Carolina Career Readiness Certificate based on the ACT WorkKeys system. It is a portable credential recognized nationally, that shows employers your skill level in Applied Math, Reading for Information, and Locating Information. Prove to employers you have the skills to do the job by earning a bronze, silver or gold certificate.

### **HRD Nursing Career Readiness**

Obtain assistance in the selection of a healthcare career, prepare for the educational programs of nursing (LPN and RN), and review for the pre-nursing exam.

### **HRD Resume/Interviewing/Internet Job Search**

Professionally prepare for the job you want! Utilize resume development techniques to complete a professional resume; prepare for your interview; become familiar with application procedures; and do Internet job searches to assist you in locating and obtaining employment.

**HRD Success By Choice**

Develop a healthy self-esteem and positive attitude to ensure a happy life and a successful career. Establish goals and explore career opportunities.

**HRD Basic Technology Literacy**

Make the transition into technology training easy by gaining an awareness of the role of technology in the workplace. Develop basic computer use skills, compile employment-related documents, research careers, and understand the impact of social networking on employment.

# Attention!

## Youth: Ages 16-21

Have you dropped out of high school?  
Are you thinking about obtaining a GED?  
Is attending college one of your goals?  
Are you looking for work but lack experience?  
Are you ready to make plans for your future?



YES ????

**We can help you !!!**

**Call Jimmy Hensley at the JobLink to find out if you  
qualify for the WIA Youth Program  
659-6001, ext. 140**

*The Workforce Investment Act is an equal opportunity employer*



# Adult Basic Education (ABE) and GED Test Preparation Classes

MTCC College and Career Readiness offers adults the opportunity to improve their reading, writing, math, and/or communication skills. **Classes are free of charge** and are located at different locations throughout McDowell County. For information on any of the classes listed below please call 828-659-6001 or come by the JobLink located at 316 Baldwin Ave. in Marion. **(Visit us online at [www.mtcc.edu/academics](http://www.mtcc.edu/academics))**

**Day and Night Classes: Call JobLink for orientation dates or to register at for classes: 659-6001.**

*Classes: August 19 - December 18, 2013*

Class Type	Location	Days	Times
ABE	JobLink	MTuWTh	8:30 AM – 1:00 PM
ABE	St. John's	MTuWTh	8:30 AM – 12:30 PM
GED	JobLink	MTuWTh	8:30 AM – 12:00 PM

**Night Classes**

Class Type	Location	Days	Times
ABE/GED Lab	JobLink	MTuWTh	2:00 - 8:00 PM



## Testing

GED® Tests are given at JobLink, located at 316 Baldwin Avenue. Pre-registration and a testing fee of \$35.00 are required. A current government issued photo ID is also required at pre-registration and testing. For additional information, call 659-6001.



## Test Prep Online

Begin preparing for the GED Test [online](#). Available 7 days /week. Register at JobLink for an orientation session. For additional information, call 659-6001.

# English As A Second Language

Class Type	Location	Days	Times	Para más información: Ven al centro JobLink lunes a 5:30 p.m. o llame al: 442-3499 por las clases de día, o 659-6001 for las clases nocturna.
ESL	St. John's	MTuWTh	8:30 AM – 12:30 PM	
ESL	JobLink	MW	5:30 PM – 8:30 PM	
ESL Civics	JobLink	TTh	5:30 PM - 8:30 PM	

North Carolina



Career Planning, Training  
& Placement Services

## **McDowell County JobLink Career Center**

**Career Planning, Training & Placement Services**

### **SERVICES**

- Career Counseling
- Career Exploration/Research
- Career Testing/Assessment
- Career/Job Related Faxing & Copying Services
- Computer Software Tutorials
- Education & Training Information/Access
- English As A Second Language (ESL)
- GED/Adult Basic Skills
- Internet Job Search
- Interview/Job Search Preparation
- Job Listings/ Job Referrals
- Labor Market Information
- NC Career Readiness Certificate (CRC)
- Needs & Services Referral
- Resume Preparation
- WorkKeys®Preparation (Key Train)
- WorkKeys®Testing

### **SHORT-TERM JOB READINESS CLASSES**

*Classes are offered at no cost if you are unemployed, have been notified of a lay off,  
or are working and meet special income guidelines.*

Get a Resume" (15 hours)

"Search for the Ideal Career" (15 hours)

"Learn to Use a Computer" (30 hours)

### **PARTNERS ON SITE**

*The following partners have staff at the center on a part-time or full-time basis.*

- Employment Security Commission
- McDowell Technical Comm. College
- McDowell Co. Dept. of Social Services
- Vocation Rehabilitation
- Workforce Investment Act (Adult and Youth Program)

### **LOCATION & HOURS**

McDowell County JobLink Career Center  
316 Baldwin Avenue, Suite 2  
Marion, NC 28752

Phone: 828-659-6001/Fax: 828-659-8733  
8:30 AM – 5:00 PM Monday – Friday

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# TECHNICAL AND VOCATIONAL PROGRAMS

Please refer to the following lists when selecting electives in Humanities/Fine Arts and Social/Behavioral Sciences in all academic programs except College Transfer and General Education.

## *Humanities/Fine Arts*

Select one of the following:

ART	111	Art Appreciation	3	0	3
DRA	111	Theatre Appreciation	3	0	3
DRA	126	Storytelling	3	0	3
HUM	122	Southern Culture	2	2	3
MUS	110	Music Appreciation	3	0	3
MUS	210	History of Rock Music	3	0	3
PHI	210	History of Philosophy	3	0	3
REL	110	World Religion	3	0	3
REL	211	Intro to Old Testament	3	0	3
REL	212	Intro to New Testament	3	0	3

## *Social/Behavioral Science*

Select one of the following:

ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
POL	120	American Government	3	0	3
POL	130	State and Local Government	3	0	3
PSY	150	General Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3

# ACADEMIC PROGRAMS

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## ACCOUNTING

A25100 (Associate Degree) C25100AAB, C25100PAC, C25100ITP

This curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice; students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including Accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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### I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

### II. Major Courses

#### A. Core

Required Courses

ACC	120	Principles of Financial Accounting	3	2	4
ACC	121	Principles of Managerial Accounting	3	2	4
ACC	129	Individual Income Tax	2	2	3
ACC	220	Intermediate Accounting I	3	2	4

BUS	115	Business Law I	3	0	3
CIS	110	Introduction to Computers	2	2	3
ECO	252	Principles of Macroeconomics	3	0	3

**B. Other Major Courses** (Must be selected from identified prefixes)

*(A student must take 30 shc from the following, not to exceed 9 shc in any other prefix except ACC. \* Classes are recommended for the A.A.S.)*

ACC	110	Ten Key Calculator	0	2	1
ACC	130	Business Income Taxes	2	2	3
ACC	140	Payroll Accounting	1	2	2
*ACC	150	Accounting Software Applications	1	2	2
ACC	152	Adv. Software Applications	1	2	2
ACC	180	Practices in Bookkeeping	3	0	3
ACC	221	Intermediate Accounting II	3	2	4
ACC	227	Practices in Accounting	3	0	3
*ACC	240	Gov & Not-For-Profit Acct	3	0	3
*BUS	110	Introduction to Business	3	0	3
BUS	137	Principles of Management	3	0	3
BUS	230	Small Business Management	3	0	3
WBL	111	Work-Based Learning I	0	10	2
WBL	112	Work-Based Learning IV	0	10	1
CTS	130	Spreadsheet I	2	2	3
CTS	135	Introduction to Integrated Software	2	4	4
DBA	110	Database Concepts	2	3	3
OST	122	Office Computations	1	2	2
OST	136	Word Processing	2	2	3
OST	286	Professional Development	3	0	3

**III. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 70**

***Recommended Semester Schedule***

**First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
ACC	120	Principles of Financial Accounting	3	2	4
BUS	110	Introduction To Business	3	0	3
CIS	110	Introduction To Computers	2	2	3
ENG	111	Writing and Inquiry	2	2	3
OST	122	Office Computations	1	2	2

**First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
ACC	140	Payroll Accounting	1	2	2
ACC	180	Practices of Bookkeeping	3	0	3
BUS	115	Business Law I	3	0	3
CTS	130	Spreadsheet I	2	2	3

**First Year-Summer**

DBA	110	Database Concepts and Applications	2	2	3
MAT	143	Quantitative Literacy	2	2	3
Business Elective-See other major courses list			3	0	3
Other Major Courses-Pick List					

**Second Year-Fall**

ACC	129	Individual Income Tax	2	2	3
ACC	220	Intermediate Accounting	3	2	4
OST	136	Word Processing	2	2	3
Social Science Elective-See list on pg. 100			3	0	3
*Recommend Microeconomics					
Other Major Courses-Pick List					

**Second Year-Spring**

ACC	150	Accounting Software Applications	1	2	2
ACC	152	Advanced Software Applications	1	2	2
ACC	227	Practices in Accounting	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
Accounting Elective- See other major courses list					

**Second Year-Summer**

COM	231	Public Speaking	3	0	3
Humanities Elective-See list of required courses			3	0	3

***Accounts Payable, Accounts Receivable, Bookkeeping  
Certificate Program (C25100A)***

Title	Class/Lab/Credit
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**I. Major Courses**

ACC	120	Principles of Financial Accounting	3	2	4
ACC	121	Principles of Managerial Accounting	3	2	4
CIS	110	Introduction to Computers	2	2	3

**II. Other Major Courses**

*ACC	150	Accounting Software Applications	1	2	2
ACC	180	Practices in Bookkeeping	3	0	3

**Total Credits: 16**

### ***Recommended Semester Schedule***

#### **First Year-Fall**

ACC	120	Principles of Financial Accounting	3	2	4
CIS	110	Introduction To Computers	2	2	3

#### **First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
ACC	150	Accounting Software Applications	1	2	2
ACC	180	Practices in Bookkeeping	3	0	3

**Total Credits: 16**

### ***Payroll Accounting Clerk Certificate Program (C25100C)***

<u>Title</u>	<u>Class/Lab/Credit</u>
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#### **I. Major Courses**

ACC	120	Principles of Financial Accounting	3	2	4
ACC	121	Principles of Managerial Accounting	3	2	4
CIS	110	Introduction to Computers	2	2	3

#### **II. Other Major Courses**

ACC	140	Payroll Accounting	1	2	2
ACC	150	Accounting Software Applications	1	2	2
BUS	110	Introduction to Business	2	2	3

**Total Credits: 18**

### ***Recommended Semester Schedule***

#### **First Year-Fall**

ACC	120	Principles of Financial Accounting	3	2	4
CIS	110	Introduction To Computers	2	2	3
BUS	110	Introduction to Business	2	2	3

#### **First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
ACC	140	Payroll Accounting	1	2	2
ACC	150	Accounting Software Applications	1	2	2

**Total Credits: 18**



***Income Tax Preparer  
Certificate Program (C25100B)***

<u>Title</u>			<u>Class/Lab/Credit</u>		
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**I. Major Courses**

ACC	120	Principles of Financial Accounting	3	2	4
ACC	121	Principles of Managerial Accounting	3	2	4
ACC	129	Individual Income Tax	2	2	3

**II. Other Major Courses**

ACC	130	Business Income Taxes	2	2	3
BUS	110	Introduction to Business	2	2	3

**Total Credits: 17**

***Recommended Semester Schedule***

**First Year-Fall**

ACC	120	Principles of Financial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
ACC	129	Individual Income Tax	2	2	3

**First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
ACC	130	Business Income Taxes	2	2	3

**Total Credits: 17**

# ADVERTISING AND GRAPHIC DESIGN

A30100 (Associate Degree)

D30100 (Diploma-Evening) C30100 (Certificate-Evening)

This curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and business with in-house graphics operations.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*This curriculum was designed to be entered in the fall of each year. Some classes may not be offered every semester.*

Title	Class/Lab/Credit
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## I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

ART	111	Art Appreciation	**Recommended	3	0	3
PSY	150	General Psychology	**Recommended	3	0	3

## II. Major Courses

### A. Core

Required Courses

GRD	110	Typography I	2	2	3
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GRD	121	Drawing Fundamentals I	1	3	2
GRD	131	Illustration I	1	3	2
GRD	141	Graphic Design I	2	4	4
GRD	142	Graphic Design II	2	4	4
GRD	151	Computer Design Basics	1	4	3
GRD	152	Computer Design Techniques I	1	4	3
GRD	241	Graphic Design III	2	4	4
GRD	280	Portfolio Design	2	4	4

## **B. Concentration** (If appropriate)

### **C. Other Major Courses**

GRD	242	Graphic Design IV	2	4	4
GRD	249	Advanced Design Practice	1	9	4
GRD	263	Illustrative Imaging	1	4	3
GRD	285	Client/Media Relations	1	2	2

### **Choose at least 9 credit hours from the following:**

BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	4
CIS	115	Intro to Programming & Logic	2	3	3
DBA	110	Database Concepts	2	3	3
MKT	120	Principles of Marketing	3	0	3
NET	110	Networking Concepts	2	2	3
NOS	110	Operating Systems Concepts	2	3	3
PHO	110	Fundamentals of Photography	3	6	5
PHO	113	History of Photography	3	0	3
PHO	115	Basic Studio Lighting	2	6	4
PHO	120	Intermediate Photography	2	4	4
PHO	140	Digital Photo Imaging	2	4	4
PHO	224	Multimedia Production	2	3	3
WBL	111	Work-Based Learning I	0	10	1
WEB	110	Internet/Web Fundamentals	2	2	3
WEB	111	Introduction to Web Graphics	2	2	3
WEB	115	Web Markup and Scripting	2	2	3
WEB	120	Intro. to Internet Multimedia	2	2	3
WEB	140	Web Development Tools	2	2	3
WEB	179	JAVA Web Programming	2	3	3
WEB	182	PHP Programming	2	2	3
WEB	210	Web Design	2	2	3
WEB	225	Content Management Systems	2	2	3
WEB	287	Web E-Portfolio	1	2	2

## **III. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 67**

## *Recommended Semester Schedule*

### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
GRD	110	Typography	2	2	3
GRD	121	Drawing Fundamentals I	1	3	2
GRD	141	Graphic Design I	2	4	4
GRD	151	Computer Design Basics	1	4	3

### **First Year-Spring**

GRD	131	Illustration I	1	3	2
GRD	142	Graphic Design II	2	4	4
GRD	152	Computer Design Techniques	1	4	3
MAT	143	Quantitative Literacy	2	2	3
Major Elective-See list of courses					

### **First Year-Summer**

ENG	111	Writing and Inquiry	3	0	3
GRD	263	Illustrative Imaging	1	4	3

### **Second Year-Fall**

ART	111	Art Appreciation ** Recommended	3	0	3
COM	231	Public Speaking	3	0	3
GRD	241	Graphic Design III	2	4	4
GRD	285	Client/Media Relations	1	2	2
Major Elective-See list of courses					

### **Second Year-Spring**

GRD	242	Graphic Design IV	2	4	4
GRD	249	Advanced Design Practice	1	9	4
PSY	150	General Psychology **Recommended	3	0	3
Major Elective-See list of courses					

### **Second Year-Summer**

GRD	280	Portfolio Design	2	4	4
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## *Diploma Program (D30100)*

Title	Class/Lab/Credit
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### **I. General Education Courses**

COM	231	Public Speaking	3	0	3
MAT	143	Quantitative Literacy	2	2	3

## II. Major Courses

GRD	110	Typography I	2	2	3
GRD	121	Drawing Fundamentals I	1	3	2
GRD	131	Illustration I	1	3	2
GRD	141	Graphic Design I	2	4	4
GRD	142	Graphic Design II	2	4	4
GRD	151	Computer Design Basics	1	4	3
GRD	152	Computer Design Techniques I	1	4	3
GRD	263	Illustrative Imaging	1	4	3
GRD	280	Portfolio Design	2	4	4

## III. Other Major Courses (Must be selected from the identified prefixes)

Choose at least 3 credit hours from the following:

BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	4
CIS	115	Intro to Programming & Logic	2	3	3
DBA	110	Database Concepts	2	3	3
MKT	120	Principles of Marketing	3	0	3
NET	110	Networking Concepts	2	2	3
NOS	110	Operating Systems Concepts	2	3	3
PHO	110	Fundamentals of Photography	3	6	5
WEB	110	Internet/Web Fundamentals	2	2	3
WEB	111	Introduction to Web Graphics	2	2	3
WEB	179	JAVA Web Programming	2	3	3
WEB	182	PHP Programming	2	2	3
WEB	210	Web Design	2	2	3
WEB	225	Content Management Systems	2	2	3
WEB	287	Web E-Portfolio	1	2	2

## IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 38-40**

## *Recommended Semester Schedule*

### First Year-Fall

ACA	115	Success and Study Skills	0	2	1
GRD	110	Typography	2	2	3
GRD	121	Drawing Fundamentals I	1	3	2
GRD	141	Graphic Design I	2	4	4
GRD	151	Computer Design Basics	1	4	3

**First Year-Spring**

GRD	131	Illustration I	1	3	2
GRD	142	Graphic Design II	2	4	4
GRD	152	Computer Design Techniques	1	4	3
MAT	143	Quantitative Literacy	2	2	3
Major Elective					

**First Year-Summer**

COM	231	Public Speaking	3	0	3
GRD	263	Illustrative Imaging	1	4	3
GRD	280	Portfolio Design	2	4	4

***Certificate Program (C30100)***

Title	Class/Lab/Credit				
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**I. Major Courses**

GRD	110	Typography I	2	2	3
GRD	141	Graphic Design I	2	4	4
GRD	151	Computer Design Basics	1	4	3
GRD	152	Computer Design Techniques I	1	4	3

**Total Credits: 13*****Recommended Semester Schedule*****First Year-Fall**

GRD	141	Graphic Design I	2	4	4
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**First Year-Spring**

GRD	110	Typography	2	2	3
GRD	151	Computer Design Basics	1	4	3

**First Year-Fall**

GRD	152	Computer Design Techniques	1	4	3
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# AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

## D35100 (Diploma)

This curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair and/or installation of residential and light commercial systems.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

## *Diploma Program*

Title									
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### I. General Education Courses

ENG	101	Applied Communications I	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3

### II. Major Courses

AHR	110	Introduction to Refrigeration	2	6	5
AHR	112	Heating Technology	2	4	4
AHR	113	Comfort Cooling	2	4	4
AHR	114	Heat Pump Technology	2	4	4
ELC	111	Introduction to Electricity	2	2	3

### III. Other Major Courses (Must be selected from identified prefixes)

AHR	130	HVAC Controls	2	2	3
AHR	160	Refrigerant Certification	1	0	1
AHR	210	Residential Building Code	1	2	2
AHR	211	Residential System Design	2	2	3
BPR	135	Schematics and Diagrams	2	0	2
CIS	113	Computer Basics	0	2	1

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
<b>Total Credits: 39</b>					

***Recommended Semester Schedule*****First Year-Fall**

AHR	110	Introduction to Refrigeration	2	6	5
ELC	111	Introduction to Electricity	2	2	3
ACA	115	Success and Study Skills	0	2	1

**First Year-Spring**

AHR	112	Heating Technology	2	4	4
AHR	130	HVAC Controls	2	2	3
BPR	135	Schematics and Diagrams	2	0	2
ENG	101	Applied Communications	3	0	3

**First Year-Summer**

AHR	113	Comfort Cooling	2	4	4
AHR	211	Residential System Design	2	2	3
CIS	113	Computer Basics	0	2	1
MAT	110	Mathematical Measurement and Literacy	2	2	3

**Second Year-Fall**

AHR	114	Heat Pump Technology	2	4	4
AHR	210	Residential Building Code	1	2	2
AHR	160	Refrigerant Certification	1	0	1



# ASSOCIATE DEGREE NURSING, NON-INTEGRATED

A45110 (Associate Degree)

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

## ***Program Student Learning Outcomes***

Graduates will be able to:

1. Advocate for patients and families in ways that promote their self-determination, integrity, and ongoing growth as human beings.
2. Make judgements in practice, substantiated with evidence that integrates nursing science in the provision of safe, quality care and that promote the health of patients within a family and community context.
3. Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving identity as a nurse committed to evidence-based practice, caring, advocacy, and safe, quality care for diverse patients within a family and community context.
4. Examine the evidence that underlines clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.

## ***Foothills Nursing Consortium***

The Foothills Nursing Consortium includes:

McDowell Technical Community College, Marion  
Cleveland Community College, Shelby  
Isothermal Community College, Spindale and

The Foothills Nursing Consortium (FNC), Associate Degree Nursing (AD Nursing) program is approved by the NC Community College System Office and the NC Board of Nursing.

Characteristics of the AD Nursing program:

- a) will prepare students to apply to sit for the National Council Licensure Examination (NCLEX-RN) which is required to practice as a registered nurse.
- b) is designed for five sequential semesters in length.
- c) will be separate from the existing practical nurse programs in the above colleges.

Isothermal Community College is the administrative unit and the central location of the three colleges. The commuting time to the administrative unit from the other two colleges is approximately 30 minutes or twenty miles. This means that the greatest distance between the consortium colleges is approximately one hour or 50 miles.

Nursing classes will be held on all three campuses at some period of time during the program. When possible, non-nursing courses will be scheduled on the campus of the student's county of residence.

Please visit the McDowell Technical Community College Health Science website for the complete admission packets for generic and advanced placement entries:

***[http://www.mcdowelltech.edu/health\\_science.html](http://www.mcdowelltech.edu/health_science.html)***

Title	Class/Lab/Clinical/Credit			
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### **I. General Education Courses**

BIO	168	Anatomy and Physiology I	3	3	0	4
BIO	169	Anatomy and Physiology II	3	3	0	4
BIO	175	General Microbiology	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
PSY	150	General Psychology	3	0	0	3
PSY	241	Developmental Psychology	3	0	0	3

Humanities Elective-Select one from the list below:	3	0	0	3
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ART 111, ART 114, ART 115, MUS 110, MUS 112, PHI 215, PHI 240, or HUM 115

### **II. Major Courses**

NUR	111	Introduction to Health Concepts	4	6	6	8
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	113	Family Health Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
NUR	211	Health Care Concepts	3	0	6	5
NUR	212	Health System Concepts	3	0	6	5
NUR	213	Complex Health Concepts	4	3	15	10
NUR	214*	Nsg. Transition Concepts	3	0	3	4

\*For Advanced Placement Students only

### III. Other Required Courses - Select 1 credit hour

(Maximum of 7 shc for AAS, 4 shc for diploma and 1 shc for certificate)

(Includes free electives, orientation, and/or study skills courses)

ACA	115	College Student Success	0	2	0	1
ACA	122	College Transfer Success	0	2	0	1

**Total Credits: 70**

### *Recommended Semester Schedule*

**Students are not allowed to enroll in the NUR courses until formally accepted into the program. Please see admission requirements.**

#### **First Year-Fall**

ACA	115	College Student Success	0	2	0	1
BIO	168	Anatomy & Physiology I	3	3	0	4
NUR	111	Introduction to Health Concepts	4	6	6	8
PSY	150	General Psychology	3	0	0	3

#### **First Year-Spring**

BIO	169	Anatomy & Physiology II	3	3	0	4
NUR	112	Health-Illness Concepts (8 weeks)	3	0	6	5
NUR	211	Health Care Concepts (8 weeks)	3	0	6	5
NUR	214*	Nsg. Transition Concepts	3	0	3	4

\*Advanced Placements students

#### **First Year-Summer**

ENG	111	Writing and Inquiry	3	0	0	3
NUR	114	Holistic Health Concepts	3	0	6	5
PSY	241	Developmental Psychology	3	0	0	3

#### **Second Year-Fall**

BIO	175	Microbiology	2	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	0	3
NUR	113	Family Health Concepts (8 weeks)	3	0	6	5
NUR	212	Health System Concepts (8 weeks)	3	0	6	5

#### **Second Year-Spring**

NUR	213	Complex Health Concepts	4	3	15	10
Humanities Elec.-See list on preceding page			3	0	0	3

**Total Credits: 70**

# AUTOMOTIVE SYSTEMS TECHNOLOGY

A60160 (Associate Degree) D60160 (Diploma) C60160 (Certificate)

Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entrylevel transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

**Automotive Systems Technology:** A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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**I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	110	Math Measurement and Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

**II. Major Courses**

AUT	113	Automotive Servicing I	0	6	2
AUT	114	Safety and Emissions	1	2	2
AUT	114A	Safety and Emissions Lab	0	2	1
AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
AUT	141	Suspension and Steering Systems	2	3	3
AUT	141A	Suspension and Steering Lab	0	3	1

AUT	151	Brake Systems	2	3	3
AUT	151A	Brake Systems Lab	0	3	1
AUT	181	Engine Performance-1	2	3	3
AUT	181A	Engine Performance I Lab	0	3	1
AUT	183	Engine Performance-2	2	6	4
AUT	212	Auto Shop Management	3	0	3
AUT	221	Auto Transmissions/Transaxles	2	3	3
AUT	221A	Auto Transmissions/Transaxles Lab	0	3	1
AUT	231	Manual Transmissions/Transaxles/Drivetrains	2	3	3
AUT	231A	Manual Transmissions/Transaxles/Drivetrains Lab	0	3	1
TRN	120	Basic Transportation Electricity	4	3	5
TRN	130	Intro. to Sustainable Transportation	2	2	3
TRN	140	Transportation Climate Control	1	2	2
TRN	140A	Transportation Climate Control Lab	1	2	2
TRN	145	Adv. Transportation Electronics	2	3	3
TRN	170	PC Skills for Transportation	1	2	2
TRN	180	Basic Welding for Transportation	1	4	3
<b>III. Other Required Courses</b>					
ACA	115	Success and Study Skills	0	2	1

**Total Credits: 72**

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
TRN	120	Basic Transportation Electricity	4	3	5
TRN	170	PC Skills for Transportation	1	2	2

#### **First Year-Spring**

AUT	114	Safety and Emissions	1	2	2
AUT	114A	Safety and Emissions Lab	0	2	1
AUT	181	Engine Performance I	2	3	3
AUT	181A	Engine Performance I Lab	0	3	1
MAT	110	Math Measurement and Literacy	2	2	3
TRN	145	Adv. Transportation Electronics	2	3	3

#### **First Year-Summer**

AUT	183	Engine Performance II	2	6	4
TRN	140	Transportation Climate Control	1	2	2
TRN	140A	Transportation Climate Control Lab	1	2	2
Humanities Elective-see page 100					

**Second Year-Fall**

AUT	221	Auto Transmissions/Transaxles	2	3	3
AUT	221A	Auto Transmissions/Transaxles Lab	0	3	1
AUT	231	Manual Transmissions/Transaxles/Drivetrains	2	3	3
AUT	231A	Manual Transmissions/Transaxles/Drivetrains Lab	0	3	1
TRN	180	Basic Welding for Transportation	1	4	3
Social/Behavioral Science Elective- See page 100					

**Second Year-Spring**

AUT	113	Automotive Servicing I	0	6	2
AUT	212	Auto Shop Management	3	0	3
COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
TRN	130	Intro. to Sustainable Transportation	2	2	3

**Second Year-Summer**

AUT	141	Suspension and Steering Systems	2	3	3
AUT	141A	Suspension and Steering Lab	0	3	1
AUT	151	Brake Systems	2	3	3
AUT	151A	Brake Systems Lab	0	3	1

***Diploma Program (D60160)***

Title	Class/Lab/Credit				
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**I. General Education Courses**

ENG	101	Applied Communications I	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3

**II. Major Courses**

AUT	113	Automotive Servicing I	0	6	2
AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
AUT	141	Suspension and Steering Systems	2	3	3
AUT	141A	Suspension and Steering Systems Lab	0	3	1
AUT	151	Brake Systems	2	3	3
AUT	151A	Brake Systems Lab	0	3	1
AUT	181	Engine Performance-1	2	3	3
AUT	181A	Engine Performance-1 Lab	0	3	1
AUT	183	Engine Performance-2	2	6	4
AUT	221	Auto Transmissions/Transaxles	2	3	3
AUT	221A	Auto Transmissions/Tranaxles Lab	0	3	1
AUT	231	Manual Transmissions/Transaxles/Drivetrains	2	3	3
AUT	231A	Manual Transmissions/Transaxles/Drivetrains Lab	0	3	1
TRN	120	Basic Transportation Electricity	4	3	5
TRN	130	Intro. to Sustainable Transportation	2	2	3
TRN	170	PC Skills for Transportation	1	2	2

**III. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 47**

***Recommended Semester Schedule***

**First Year-Fall**

AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
TRN	120	Basic Transportation Electricity	4	3	5
TRN	170	PC Skills for Transportation	1	2	2

**First Year-Spring**

AUT	181	Engine Performance I	2	3	3
AUT	181A	Engine Performance I Lab	0	3	1
MAT	110	Mathematical Measurement and Literacy	2	2	3

**First Year-Summer**

AUT	183	Engine Performance II	2	6	4
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**Second Year-Fall**

AUT	221	Auto Transmissions/Transaxles	2	3	3
AUT	221A	Auto Transmissions/Tranaxles Lab	0	3	1
AUT	231	Manual Transmissions/Transaxles/Drivetrains	2	3	3
AUT	231A	Manual Transmissions/Transaxles/Drivetrains Lab	0	3	1

**Second Year-Spring**

AUT	113	Automotive Servicing I	0	6	2
AUT	212	Auto Shop Management	3	0	3
ENG	101	Applied Communications I	3	0	3
TRN	130	Intro. to Sustainable Transportation	2	2	3

**Second Year-Summer**

AUT	141	Suspension and Steering Systems	2	3	3
AUT	141A	Suspension and Steering Systems Lab	0	3	1
AUT	151	Brake Systems	2	3	3
AUT	151A	Brake Systems Lab	0	3	1

## ***Certificate Program (C60160)***

Title			Class/Lab/Credit		
I. Major Courses					
AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
AUT	181	Engine Performance-1	2	3	3
AUT	181A	Engine Performance-1 Lab	0	3	1
AUT	183	Engine Performance-2	2	6	4
TRN	120	Basic Transportation Electricity	4	3	5

**Total Credits: 17**

### ***Recommended Semester Schedule***

#### **First Year-Fall**

AUT	116	Engine Repair	2	3	3
AUT	116A	Engine Repair Lab	0	3	1
TRN	120	Basic Transportation Electricity	4	3	5

#### **First Year-Spring**

AUT	181	Engine Performance I	2	3	3
AUT	181A	Engine Performance I Lab	0	3	1

#### **First Year-Summer**

AUT	183	Engine Performance II	2	6	4
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# BASIC LAW ENFORCEMENT TRAINING

C55120 (Certificate)

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments or with private enterprise.

This program utilizes State Commission mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic and alcohol beverage laws; investigative, patrol, custody and court procedures; emergency responses; and ethics and community relations.

Students must successfully complete and pass all units of study which include the certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs' Education and Training Standards Commission to receive a certificate.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*Enrollment in this program may be limited. Special admissions procedures may apply. Contact the BLET Coordinator for additional information.*

*\*\*McDowell Technical Community College students may also take a limited number of classes on the MTCC campus to apply toward a degree in Criminal Justice through Western Piedmont Community College. Contact Western Piedmont for additional information and requirements.*

Title	Class/Lab/Credit
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## I. Major Courses

CJC	100	Basic Law Enforcement Tng	9	30	19
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**Total Credits: 19**

# BUSINESS ADMINISTRATION

## A25120 (Associate Degree)

This curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions and large to small business or industry.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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### I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

### II. Major Courses

ACC	120	Principles of Financial Accounting	3	2	4
BUS	115	Business Law I	3	0	3
BUS	137	Principles of Management	3	0	3
CIS	110	Introduction to Computers	2	2	3
ECO	251	Principles of Microeconomics	3	0	3
MKT	120	Principles of Marketing	3	0	3

### III. Other Major Courses (Take 36 credits from this list. Must be selected from identified prefixes)

ACC	121	Principles of Managerial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
BUS	125	Personal Finance	3	0	3
BUS	147	Business Insurance	3	0	3

BUS	153	Human Resource Management	3	0	3
BUS	225	Business Finance	2	2	3
BUS	230	Small Business Management	3	0	3
BUS	280	REAL Small Business	4	0	4
COE	111	Co-op Work Experience I	0	10	1
CTS	130	Spreadsheet	2	2	3
DBA	110	Database	2	3	3
ECO	252	Principles of Macroeconomics	3	0	3
MKT	123	Fundamentals of Selling	3	0	3
OST	131	Keyboarding	1	2	2
OST	136	Word Processing	2	2	3
OST	236	Adv. Word/Information Processing	2	2	3
OST	286	Professional Development	3	0	3

### III. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 71**

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
ACC	120	Principles of Financial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

#### **First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
BUS	115	Business Law	3	0	3
CTS	130	Spreadsheet I	3	2	3
MKT	120	Principles of Marketing	3	0	3
Humanities/Social Sciences Elective-See list on page 100			3	0	3

#### **First Year-Summer**

BUS	147	Business Insurance	3	0	3
BUS	230	Small Business Management	3	0	3

**Second Year-Fall**

BUS	125	Personal Finance	3	0	3
BUS	137	Principles of Management	3	0	3
BUS	225	Business Finance	2	2	3
ECO	251	Principles of Microeconomics	3	0	3
MKT	123	Fundamentals of Selling	3	0	3

**Second Year-Spring**

BUS	153	Human Resource Management	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
OST	286	Professional Development	3	0	3
OST	136	Word Processing	1	2	2
Humanities/Social Sciences Elective-See list on page 100			3	0	3

**Second Year-Summer**

COM	231	Public Speaking	3	0	3
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# BUSINESS ADMINISTRATION

## CONCENTRATION: MARKETING & RETAILING

A2512F (Associate Degree)

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes: marketing, retailing, merchandising, selling, advertising, computer technology and management.

Graduates should qualify for marketing positions within organizations and employment in retailing services and product businesses.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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### I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page100.

### II. Major Courses

ACC	120	Principles of Financial Accounting	3	2	4
BUS	115	Business Law I	3	0	3
BUS	137	Principles of Management	3	0	3
CIS	110	Introduction to Computers	2	2	3
ECO	251	Principles of Microeconomics	3	0	3
MKT	120	Principles of Marketing	3	0	3

### III. Concentration

MKT	122	Visual Merchandising	3	0	3
MKT	123	Fundamentals of Selling	3	0	3
MKT	220	Advertising & Sales Promotion	3	0	3
MKT	225	Market Research	3	0	3
MKT	227	Marketing Applications	3	0	3

**IV. Other Major Courses** (Take 21 credits from this list. Must be selected from identified prefixes)

ACC	121	Principles of Managerial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
BUS	280	REAL Small Business	4	0	4
COE	111	Co-Op Experience	0	10	1
CTS	130	Spreadsheet I	2	2	3
DBA	110	Database	2	3	3
ECO	252	Principles of Macroeconomics	3	0	3
MKT	121	Retailing	3	0	3
MKT	224	International Marketing	3	0	3
OST	131	Keyboarding	1	2	2
OST	136	Word Processing	2	2	3
OST	286	Professional Development	3	0	3

**V. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 71**

***Recommended Semester Schedule***

**First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
ACC	120	Principles of Financial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

**First Year-Spring**

ACC	121	Principles of Managerial Accounting	3	2	4
BUS	115	Business Law	3	0	3
CTS	130	Spreadsheet I	3	2	3
MKT	120	Principles of Marketing	3	0	3

Humanities/Social Sciences Elective-See list on page 100	3	0	3
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**First Year-Summer**

COM	231	Public Speaking	3	0	3
MKT	220	Advertising & Sales Promotion	3	0	3

**Second Year-Fall**

ECO	251	Principles of Microeconomics	3	0	3
BUS	137	Principles of Management	3	0	3
MKT	123	Fundamentals of Selling	3	0	3

MKT	122	Visual Merchandising	3	0	3
MKT	121	Retailing	3	0	3

### **Second Year-Spring**

ECO	252	Principles of Macroeconomics	3	0	3
OST	136	Word Processing	1	2	2
MKT	224	International Marketing	3	0	3
MKT	225	Market Research	3	0	3
Humanities/Social Sciences Elective-See list on page 100			3	0	3

### **Second Year-Summer**

MKT	227	Marketing Applications	3	0	3
OST	286	Professional Development	3	0	3

# BUSINESS ADMINISTRATION

## CONCENTRATION: OPERATIONS MANAGEMENT

A2512G (Associate Degree)

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis and the management of human, physical and information resources.

Graduates should qualify for leadership positions or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management and inventory/materials management.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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**I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

**II. Major Courses**

ACC	120	Principles of Financial Accounting	3	2	4
BUS	115	Business Law I	3	0	3
BUS	137	Principles of Management	3	0	3
CIS	110	Introduction to Computers	2	2	3
ECO	251	Principles of Microeconomics	3	0	3
MKT	120	Principles of Marketing	3	0	3



### III. Concentration

ISC	121	Environmental Health & Safety	3	0	3
ISC	130	Introduction to Quality Control	3	0	3
ISC	210	Operation & Production Planning	3	0	3
OMT	112	Materials Management	3	0	3
OMT	260	Issues in Operations Management	3	0	3

### IV. Other Major Courses (Take 16 credits from this list.)

BUS	135	Principles of Supervision	3	0	3
BUS	153	Human Resource Management	3	0	3
BUS	225	Business Finance	2	2	3
BUS	240	Business Ethics	3	0	3
COE	111	Co-Op Work Experience	0	10	1
OMT	143	Just-In-Time	2	0	2
OST	131	Keyboarding	1	2	2
OST	136	Word Processing	2	2	3
OST	286	Professional Development	3	0	3

### V. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 66**

### *Recommended Semester Schedule*

#### First Year-Fall

ACA	115	Success and Study Skills	0	2	1
ACC	120	Principles of Financial Accounting	3	2	4
CIS	110	Introduction to Computers	2	2	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
OMT	143	Just-In-Time	2	0	2

#### First Year-Spring

BUS	115	Business Law	3	0	3
ISC	130	Introduction to Quality Control	3	0	3
MKT	120	Principles of Marketing	3	0	3
OMT	112	Materials Management	3	0	3
Humanities Elective-See list on page 100			3	0	3

#### First Year-Summer

ISC	121	Environmental Health & Safety	3	0	3
OST	131	Keyboarding	1	2	2
or					
OST	136	Word Processing	2	2	3

**Second Year-Fall**

BUS	137	Principles of Management	3	0	3
BUS	225	Business Finance	3	0	3
BUS	240	Business Ethics	3	0	3
ECO	251	Principles of Microeconomics	3	0	3

**Second Year-Spring**

BUS	135	Principles of Supervision	3	0	3
BUS	153	Human Resources Management	3	0	3
ISC	210	Operations and Production Planning	3	0	3
PSY	150	General Psychology	3	0	3

**Second Year-Summer**

COM	231	Public Speaking	3	0	3
OMT	260	Issues in Operations Management	3	0	3

# CARPENTRY

D35180 (Diploma) C35180 (Certificate) C35180A (Certificate)

This Carpentry curriculum is designed to train students to construct structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes: footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating and other related topics. Students will develop skills through hands-on participation.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters and other related job titles.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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## I. General Education Courses

ENG	101	Applied Communications I	3	0	3
MAT	110	Mathematical Measurements and Literacy	2	2	3

## II. Major Requirements

BPR	130	Blueprint Reading	3	0	3
CAR	111	Carpentry I	3	15	8

## III. Other Major Requirements

### Take 13 credits from:

CAR	110	Introduction to Carpentry	2	0	2
CAR	112	Carpentry II	3	15	8
WBL	111	Work-Based Learning	0	10	1
DFT	111	Technical Drafting I	1	3	2
ISC	110	Workplace Safety	1	0	1

### Take 6 credits from:

CAR	113	Carpentry III	3	9	6
CAR	150	Concrete Construction	2	9	5
CIS	110	Introduction to Computers	2	2	3
CIS	113	Computer Basics	0	2	1

#### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 37**

#### *Recommended Semester Schedule*

##### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
CAR	110	Introduction to Carpentry	2	0	2
CAR	111	Carpentry I	3	15	8
CIS	113	Computer Basics	0	2	1
ISC	110	Workplace Safety	1	0	1
*MAT	110	Mathematical Measurement and Literacy	2	2	3

##### **First Year-Spring**

BPR	130	Blueprint Reading	3	0	3
CAR	112	Carpentry II	3	15	8
CAR	150	Concrete Construction	2	9	5

##### **First Year-Summer**

DFT	119	Basic CAD	1	2	2
ENG	101	Applied Communications I	3	0	3

##### **Second Year-Fall**

CAR	113	Carpentry III	3	9	6
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#### *Certificate Program (C35180)*

Title	Class/Lab/Credit				
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##### **I. Major Courses**

CAR	111	Carpentry I	3	15	8
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##### **III. Other Major Courses**

CAR	110	Introduction to Carpentry	2	0	2
CAR	112	Carpentry II	3	15	8

**Total Credits: 18**

### *Recommended Semester Schedule*

#### **First Year-Fall**

CAR	110	Introduction to Carpentry	2	0	2
CAR	111	Carpentry I	3	15	8

#### **First Year-Spring**

CAR	112	Carpentry II	3	15	8
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**Total Credits: 18**

# COLLEGE TRANSFER - ASSOCIATE IN ARTS PROGRAM

A10100 (Associate Degree)

This program is designed for students who intend to transfer to a four-year college or university. The student may complete course work equivalent to the first two years of study required for a bachelor's degree. Unless otherwise indicated, classes in this program satisfy the articulation agreement with colleges in the University of North Carolina System and are eligible for transfer to four-year degree programs, provided all other requirements for transfer are satisfied.

The curriculum in the College Transfer/Liberal Arts program is designed to meet students needs. It includes courses in English, humanities/fine arts, foreign languages, mathematics, science, social sciences, and physical education.

The Associate in Arts degree (A.A.) is awarded upon completion of program requirements. Graduates usually transfer to a senior institution with junior year status. Follow up studies show that community college transfer students are generally successful in their studies at senior institutions.

**\*The Placement Test is required for all courses listed.**

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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## **I. General Education Requirements. 45 shc required**

### **English Composition (6 semester hours)**

ENG	111	Writing and Inquiry	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	3

### **Humanities/Communications (9 semester hours)**

COM	231	Public Speaking	3	0	3
ENG	231	American Literature I	3	0	3
or					
ENG	232	American Literature II	3	0	3

Select one additional course from the following:

ART	111	Art Appreciation	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
MUS	110	Music Appreciation	3	0	3

### **Social/Behavioral Sciences (9 semester hours)**

Select one history course:

HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3

Take 2 additional courses from the following:

ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
POL	120	American Government	3	0	3
PSY	150	General Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3

### **Natural Science (10-11 semester hours)**

Select one science course:

BIO	111	General Biology I	3	3	4
CHM	151	General Chemistry I	3	3	4

Select two math courses:

MAT	143	Quantitative Literacy	2	2	3
MAT	152	Statistical Methods	3	2	4
MAT	171	Precalculus Algebra	3	2	4
MAT	271	Calculus I	3	2	4

## **II. Additional General Education (14 semester hours)**

ART	111	Art Appreciation	3	0	3
BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4
CHM	131	Introduction to Chemistry	3	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	1
CHM	132	Organic and Biochemistry	3	3	4
CHM	151	General Chemistry I	3	3	4
CHM	152	General Chemistry II	3	3	4
DRA	111	Theatre Appreciation	3	0	3
ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
HIS	111	World Civilizations I	3	0	3

HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
HUM	122	Southern Culture	3	0	3
MAT	143	Quantitative Literacy	2	2	3
MAT	171	Precalculus Algebra	3	0	3
MAT	172	Precalculus Trigonometry	3	0	3
MAT	271	Calculus I	3	2	4
MAT	272	Calculus II	3	2	4
MAT	273	Calculus III	3	2	4
POL	120	American Government	3	0	3
POL	210	Comparative Government	3	0	3
PSY	239	Psychology of Personality	3	0	3
PSY	241	Developmental Psychology	3	0	3
PSY	281	Abnormal Psychology	3	0	3
REL	110	World Religions	3	0	3
REL	211	Intro. to Old Testament	3	0	3
REL	212	Intro. to New Testament	3	0	3
SOC	210	Intro. to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3
SPA	111	Elementary Spanish I	3	0	3
SPA	112	Elementary Spanish II	3	0	3
SPA	211	Intermediate Spanish I	3	0	3

### III. Other Requirements (15 semester hours)

#### Local MTCC Requirements (6 semester hours)

ACA	122	College Transfer Success	1	0	1
CIS	110	Introduction to Computers	2	2	3
PED	110	Fit and Well For Life	1	2	2

#### Select 9 additional semester hours from the following list:

ACC	120	Principles of Financial Accounting I	3	2	4
ACC	121	Principles of Financial Accounting II	3	2	4
BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4
BIO	168	Anatomy and Physiology I	3	3	4
BIO	169	Anatomy and Physiology II	3	3	4
BIO	275	General Microbiology	2	2	3
BUS	110	Introduction to Business	3	0	3
BUS	115	Business Law	3	0	3
BUS	137	Principles of Management	3	0	3
CHM	131	Introduction to Chemistry	3	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	1
CHM	132	Organic and Biochemistry	3	3	4



CIS	115	Introduction to Programming and Logic	2	3	3
CSC	134	C++ Programming	2	3	3
CSC	151	JAVA Programming	2	3	3
DRA	111	Theatre Appreciation	3	0	3
DRA	126	Storytelling	3	0	3
ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
ENG	241	British Literature I	3	0	3
ENG	242	British Literature II	3	0	3
ENG	273	African-American Literature	3	0	3
HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
HUM	122	Southern Culture	3	0	3
MAT	143	Quantitative Literacy	2	2	3
MAT	171	Precalculus Algebra	3	0	3
MAT	172	Precalculus Trigonometry	3	0	3
MAT	271	Calculus I	3	2	4
MAT	272	Calculus II	3	2	4
MAT	273	Calculus III	3	2	4
PED	120	Walking For Fitness	0	3	1
POL	120	American Government	3	0	3
POL	210	Comparative Government	3	0	3
PSY	150	Intro. to Psychology	3	0	3
PSY	239	Psychology of Personality	3	0	3
PSY	241	Developmental Psychology	3	0	3
PSY	281	Abnormal Psychology	3	0	3
REL	110	World Religions	3	0	3
REL	211	Intro. to Old Testament	3	0	3
REL	212	Intro. to New Testament	3	0	3
SOC	210	Intro. to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3
SPA	111	Elementary Spanish I	3	0	3
SPA	112	Elementary Spanish II	3	0	3
SPA	211	Intermediate Spanish I	3	0	3

**Total Credits: 60-61**

# COLLEGE TRANSFER - ASSOCIATE IN SCIENCE PROGRAM

(Associate Degree A10400)

This program is designed for students who intend to transfer to a four-year college or university. The student may complete course work equivalent to the first two years of study required for a bachelor's degree. Unless otherwise indicated, classes in this program satisfy the articulation agreement with colleges in the University of North Carolina System and are eligible for transfer to four-year degree programs, provided all other requirements for transfer are satisfied.

The Associate in Science degree (A.S.) is awarded upon completion of program requirements. Graduates usually transfer to a senior institution with junior year status. Follow up studies show that community college transfer students are generally successful in their studies at senior institutions.

**\*The Placement Test is required for all courses listed.**

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title \_\_\_\_\_ Class/Lab/Credit

## I. General Education Requirements.

### Natural Science

#### Take 1 of 3 Groups

##### Group 1

##### Take 8 credits from:

BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4

##### Group 2

##### Take 8 credits from:

CHM	151	General Chemistry I	3	3	4
CHM	152	General Chemistry II	3	3	4

##### Group 3

##### Take 8 credits from:

PHY	151	College Physics I	3	2	4
PHY	152	College Physics II	3	2	4

### **Math**

#### **Take 6 credits from:**

MAT	171	Precalculus Algebra	3	0	3
MAT	172	Precalculus Trigonometry	3	0	3
MAT	175	Precalculus	4	0	4
MAT	263	Brief Calculus			
MAT	271	Calculus I	3	2	4

#### **Required Courses (6 semester hours)**

ENG	111	Writing and Inquiry	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	3

#### **Humanities/Communications (6 semester hours)**

COM	231	Public Speaking	3	0	3
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Select one additional course from the following:

ART	111	Art Appreciation	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
MUS	110	Music Appreciation	3	0	3

#### **Social/Behavioral Sciences (6 semester hours)**

Select one history course:

HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3

Select one of the following:

ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
POL	120	American Government	3	0	3
PSY	150	General Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3

#### **II. Additional General Education (11 semester hours)**

ART	111	Art Appreciation	3	0	3
BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4
CHM	131	Introduction to Chemistry	3	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	1
CHM	132	Organic and Biochemistry	3	3	4

CHM	151	General Chemistry I	3	3	4
CHM	152	General Chemistry II	3	3	4
CIS	110	Intro. to Computers	2	2	3
DRA	111	Theatre Appreciation	3	0	3
DRA	126	Storytelling	3	0	3
ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
ENG	241	British Literature I	3	0	3
ENG	242	British Literature II	3	0	3
ENG	251	Western World Literature I	3	0	3
FRE	111	Elementary French I	3	0	3
FRE	112	Elementary French II	3	0	3
HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
HUM	120	Cultural Studies	3	0	3
HUM	122	Southern Culture	3	0	3
MAT	143	Quantitative Literacy	2	2	3
MAT	171	Precalculus Algebra	3	0	3
MAT	172	Precalculus Trigonometry	3	0	3
MAT	271	Calculus I	3	2	4
MAT	272	Calculus II	3	2	4
MAT	273	Calculus III	3	2	4
MUS	110	Music Appreciation	3	0	3
PHI	210	History of Philosophy	3	0	3
PHI	240	Intro. to Ethics	3	0	3
PHY	151	College Physics I	3	2	4
PHY	152	College Physics II	3	2	4
POL	120	American Government	3	0	3
POL	210	Comparative Government	3	0	3
PSY	150	General Psychology	3	0	3
PSY	239	Psychology of Personality	3	0	3
PSY	241	Developmental Psychology	3	0	3
PSY	281	Abnormal Psychology	3	0	3
REL	110	World Religions	3	0	3
REL	211	Intro. to Old Testament	3	0	3
REL	212	Intro. to New Testament	3	0	3
SOC	210	Intro. to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3
SPA	111	Elementary Spanish I	3	0	3
SPA	112	Elementary Spanish II	3	0	3
SPA	211	Intermediate Spanish I	3	0	3

### III. Other Requirements (14 semester hours)

Local MTCC Requirements (1 semester hours)

ACA	122	College Transfer Success	1	0	1
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Select 9 additional semester hours from the following list:

ACC	120	Principles of Financial Accounting I	3	2	4
ACC	121	Principles of Financial Accounting II	3	2	4
BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4
BIO	155	Nutrition	3	0	3
BIO	163	Basic Anatomy and Physiology	4	2	5
BIO	168	Anatomy and Physiology I	3	3	4
BIO	169	Anatomy and Physiology II	3	3	4
BIO	175	General Microbiology	2	2	4
BIO	275	Microbiology	3	3	4
BUS	110	Introduction to Business	3	0	3
BUS	115	Business Law I	3	0	3
BUS	137	Principles of Management	3	0	3
CHM	131	Introduction to Chemistry	3	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	1
CHM	132	Organic and Biochemistry	3	3	4
CHM	151	General Chemistry I	3	3	4
CHM	152	General Chemistry II	3	3	4
CIS	110	Introduction to Computers	2	2	3
CIS	115	Introduction to Programming and Logic	2	3	3
COM	231	Public Speaking	3	0	3
CSC	134	C++ Programming	2	3	3
CSC	151	JAVA Programming	2	3	3
DRA	111	Theatre Appreciation	3	0	3
DRA	126	Storytelling	3	0	3
ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
ENG	114	Prof. Research & Reporting	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
ENG	241	British Literature I	3	0	3
ENG	242	British Literature II	3	0	3
ENG	251	Western World Literature I	3	0	3
ENG	271	Contemporary Literature	3	0	3
ENG	273	African-American Literature	3	0	3
FRE	111	Elementary French I	3	0	3
FRE	112	Elementary French II	3	0	3
HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3

HIS	132	American History II	3	0	3
HUM	120	Cultural Studies	3	0	3
HUM	122	Southern Culture	3	0	3
MAT	143	Quantitative Literacy	2	2	3
MAT	152	Statistical Methods I	3	0	3
MAT	171	Precalculus Algebra	3	0	3
MAT	172	Precalculus Trigonometry	3	0	3
MAT	271	Calculus I	3	2	4
MAT	272	Calculus II	3	2	4
MAT	273	Calculus III	3	2	4
PED	110	Fit and Well For Life	1	2	2
PED	111	Physical Fitness I	0	3	1
PED	113	Aerobics I	0	3	1
PED	117	Weight Training I	0	3	1
PED	120	Walking for Fitness	0	3	1
PED	128	Golf-Beginning	0	2	1
PED	130	Tennis-Beginning	0	2	1
PED	139	Bowling-Beginning	0	2	1
PED	152	Swimming-Beginning	0	2	1
PED	155	Water Aerobics	0	3	1
PHI	210	History of Philosophy	3	0	3
PHI	240	Intro. to Ethics	3	0	3
PHY	151	College Physics I	3	2	4
PHY	152	College Physics II	3	2	4
POL	120	American Government	3	0	3
POL	210	Comparative Government	3	0	3
PSY	150	Intro. to Psychology	3	0	3
PSY	239	Psychology of Personality	3	0	3
PSY	241	Developmental Psychology	3	0	3
PSY	281	Abnormal Psychology	3	0	3
REL	110	World Religions	3	0	3
REL	211	Intro. to Old Testament	3	0	3
REL	212	Intro. to New Testament	3	0	3
SOC	210	Intro. to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3
SPA	111	Elementary Spanish I	3	0	3
SPA	112	Elementary Spanish II	3	0	3
SPA	211	Intermediate Spanish I	3	0	3

**Total Credits: 60**

# COLLISION REPAIR & REFINISHING TECHNOLOGY

D60130 (Diploma) C60130 (Certificate)

Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entrylevel transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

**Collision Repair and Refinishing Technology:** A program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title			Class/Lab/Credit		
<b>I. General Education Courses</b>					
ENG	101	Applied Communications I	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3
<b>II. Major Courses</b>					
AUB	111	Painting & Refinishing I	2	6	4
AUB	121	Non-Structural Damage I	1	4	3
AUB	131	Structural Damage I	2	4	4
TRN	170	PC Skills for Transportation	1	2	2
TRN	180	Basic Welding for Transportation	1	4	3

**III. Other Major Courses**

AUB	112	Painting and Refinishing II	2	6	4
AUB	114	Special Finishes	1	2	2
AUB	122	Non Structural Damage II	2	6	4
AUB	132	Structural Damage II	2	6	4
AUB	136	Plastics and Adhesives	1	4	3
AUB	141	Mechanical and Electrical Components I	2	2	3
AUB	160	Autobody Shop Operations	1	0	1
AUB	162	Autobody Estimating	1	2	2

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 46*****Recommended Semester Schedule*****First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
AUB	111	Painting & Refinishing I	2	6	4
AUB	121	Non-Structural Damage I	1	4	3
AUB	160	Autobody Shop Operations	1	0	1
ENG	101	Applied Communications I	3	0	3
TRN	170	PC Skills for Transportation	1	2	2
TRN	180	Basic Welding for Transportation	1	4	3

**First Year-Spring**

AUB	112	Painting and Refinishing II	2	6	4
AUB	122	Non Structural Damage II	2	6	4
AUB	131	Structural Damage I	2	4	4
AUB	141	Mechanical and Electrical Components I	2	2	3

**First Year-Summer**

AUB	114	Special Finishes	1	2	2
AUB	132	Structural Damage II	2	6	4
AUB	136	Plastics and Adhesives	1	4	3
AUB	162	Autobody Estimating	1	2	2
MAT	110	Mathematical Measurement and Literacy	2	2	3

***Certificate Program (C60130)***

Title	Class/Lab/Credit				
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**I. Major Courses**

AUB	111	Painting & Refinishing I	2	6	4
AUB	121	Non-Structural Damage I	1	4	3
TRN	170	PC Skills for Transportation	1	2	2
TRN	180	Basic Welding for Transportation	1	4	3



**II. Other Major Courses**

AUB	160	Autobody Shop Operations	1	0	1
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**Total Credits: 13*****Structural Damage Certificate Program (C60130SD)***

<u>Title</u>			<u>Class/Lab/Credit</u>		
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**I. Major Courses**

AUB	131	Structural Damage I	2	4	4
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**II. Other Major Courses**

AUB	132	Structural Damage II	2	6	4
AUB	136	Plastics and Adhesives	1	4	3
AUB	141	Mechanical and Electrical Components I	2	2	3

**Total Credits: 14**

# COMPUTER INFORMATION TECHNOLOGY

A25260 (Associate Degree) C25260 (Certificate)

This curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs.

Course work will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support.

Graduates should qualify for employment in entry-level positions with businesses, educational systems and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Cred-
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## I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

## II. Major Courses

BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
CIS	115	Intro to Programming & Logic	2	3	3
CTS	120	Hardware/Software Support	2	3	3
CTS	285	Systems Analysis & Design	3	0	3
CTS	289	Systems Support Project	1	4	3
DBA	110	Database Concepts	2	3	3
NET	110	Networking Concepts	2	2	3
or					
NET	125	Networking Basics	1	4	3
NOS	110	Operating Systems Concepts	2	3	3

NOS	130	Windows Single User	2	2	3
NOS	230	Windows Admin I	2	2	3
SEC	110	Security Concepts	2	2	3
<b>III. Other Major Courses</b> (Select 15 hours)					
ACC	120	Principles of Financial Accounting	3	2	4
CSC	134	C++ Programming	2	3	3
CSC	151	Java Programming	2	3	3
CTS	130	Spreadsheet I	2	2	3
GRD	151	Computer Design Basics	1	4	3
NOS	120	Linux/Unix Single User	2	2	3
OST	131	Keyboarding	1	2	2
OST	136	Word Processing	2	2	3
WEB	110	Internet/ Web Fundamentals	2	2	3
<b>Take either:</b>					
OST	286	Professional Development	3	0	3
or					
WEB	287	Web E-Portfolio	1	2	2

#### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 69-70**

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
CIS	110	Introduction to Computers	2	2	3
MAT	143	Quantitative Literacy	2	2	3
MAT	140A	Survey of Mathematics Lab	0	2	1
NET	110	Networking Concepts	2	2	3
or					
NET	125	Networking Basics	1	4	3
NOS	110	Operating Systems Concepts	2	3	3
OST	131	Keyboarding	1	2	2

#### **First Year-Spring**

CIS	115	Introduction to Prog. & Logic	2	3	3
CTS	130	Spreadsheet I	2	2	3
ENG	111	Writing and Inquiry	3	0	3
NOS	130	Windows Single User	2	2	3
OST	136	Word Processing	2	2	3

**First Year-Summer**

COM	231	Public Speaking	3	0	3
DBA	110	Database Concepts	2	3	3
Social Sciences	Elective-See list on page 100		3	0	3

**Second Year-Fall**

ACC	120	Principles of Financial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
GRD	151	Computer Design Basics	1	4	3
or					
WEB	110	Internet/Web Fundamentals	2	2	3
NOS	120	Linux/Unix Single User	2	2	3
NOS	230	Windows Admin I	2	2	3

**Second Year-Spring**

CTS	120	Hardware/Software Support	2	3	3
CTS	285	Systems Analysis & Design	3	0	3
SEC	110	Security Concepts	3	0	3
Humanities	Elective-See list of required courses		3	0	3

**Second Year-Summer**

CTS	289	Systems Support Project	1	4	3
OST	286	Professional Development	3	0	3
or					
WEB	287	Web E-portfolio	1	2	2

***CIT Certificate (C25260)***

Title	Class/Lab/Credit				
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**I. Major Courses**

CIS	110	Introduction to Computers	2	2	3
CIS	115	Intro to Programming & Logic	2	3	3
CTS	120	Hardware/Software Support	2	3	3
DBA	110	Database Concepts	2	3	3
NET	125	Networking Basics	1	4	3
SEC	110	Security Concepts	2	2	3

**Total Credits: 18*****Recommended Semester Schedule*****First Year-Fall**

CIS	110	Introduction to Computers	2	2	3
NET	125	Networking Basics	1	4	3

SEC	110	Security Concepts	2	2	3
<b>First Year-Spring</b>					
CIS	115	Introduction to Prog. & Logic	2	3	3
CTS	120	Hardware/Software Support	2	2	3
<b>First Year-Summer</b>					
DBA	110	Database Concepts	2	3	3
<b>Total Credits: 18</b>					

# COMPUTER INTEGRATED MACHINING

A50210 (Associate) D50210 (Diploma)

This curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy and to sit for machining certification examinations.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

## *Associate Degree Program*

Title			Class/Lab/Credit		
<b>I. General Education Courses</b>					
COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	171	Pre-Calculus Algebra	3	2	4
Select one course each from page 100:					
Humanities/Fine Arts			3	0	3
Social and Behavioral Science			3	0	3
<b>II. Major Courses</b>					
BPR	111	Print Reading	1	2	2
MAC	111	Machining Technology I	2	12	6
MAC	112	Machining Technology II	2	12	6
MAC	121	Introduction to CNC	2	0	2
MAC	124	CNC Milling	1	3	2
MAC	122	CNC Turning	1	3	2
<b>III. Other Major Requirements</b>					
BPR	121	Blueprint Reading Mechanics	1	2	2
CIS	110	Introduction to Computers	2	2	3

MAC	113	Machining Technology III	2	12	6
MAC	114	Introduction to Metrology	2	0	2
MAC	151	Machining Calculations	1	2	2
MAC	152	Advanced Machining Calculations	1	2	2
MAC	222	Advanced CNC Turning	1	3	2
MAC	224	Advanced CNC Milling	1	3	2
MAC	231	CNC Graphics Prog: Turning	1	4	3
MAC	232	CNC Graphics Prog: Milling	1	4	3
WLD	112	Basic Welding Processes	1	3	2

#### IV. Other Required Courses

ACA	115	Study Skills	0	2	1
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**Total Credits: 66**

### *Recommended Semester Schedule*

#### First Year-Fall

BPR	111	Blueprint Reading	1	2	2
MAC	111	Machining Technology I	2	12	6
MAC	121	Introduction to CNC	1	3	2
MAC	151	Machining Calculations	1	2	2

#### First Year-Spring

BPR	121	Blueprint Reading Mechanical	1	2	2
MAC	112	Machining Technology II	2	12	6
MAC	122	CNC Turning	1	3	2
MAC	124	CNC Milling	1	3	2

#### First Year-Summer

ACA	115	Study Skills	0	2	1
CIS	110	Introduction to Computers	2	2	3
COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
Social/Behavioral Science Elective-see list on page 100			3	0	3

#### Second Year-Fall

MAC	113	Machining Technology III	2	12	6
MAC	222	Advanced CNC Turning	1	3	2
MAC	231	CNC Graphics Prog.: Turning	1	4	3
MAT	171	Pre-Calculus Algebra	3	2	4

#### Second Year-Spring

MAC	114	Introduction to Metrology	2	0	2
MAC	152	Advanced Machining Calculations	1	2	2
MAC	224	Advanced CNC Milling	1	3	2

MAC	232	CNC Graphics Prog.: Milling	1	4	3
WLD	112	Basic Welding Processes	1	3	2
Humanities/Fine Arts Elective- see list on page 100			3	0	3

### ***Diploma Program (D50210)***

Title	Class/Lab/Credit				
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#### **I. General Education Courses**

ENG	101	Applied Communications	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3

#### **II. Major Courses**

BPR	111	Print Reading	1	2	2
MAC	111	Machining Technology I	2	12	6
MAC	112	Machining Technology II	2	12	6
MAC	122	CNC Turning	1	3	2
MAC	124	CNC Milling	1	3	2

#### **III. Other Major Courses**

BPR	121	Blueprint Reading Mechanics	1	2	2
CIS	110	Introduction to Computers	2	2	3
MAC	151	Machining Calculations	1	2	2
MAC	113	Machining Technology III	2	12	6

#### **IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 38**

### ***Recommended Semester Schedule***

#### **First Year-Fall**

BPR	111	Blueprint Reading	1	2	2
CIS	110	Introduction to Computers	2	2	3
MAC	111	Machining Technology I	2	12	6
MAC	122	CNC Turning	1	3	2

#### **First Year-Spring**

BPR	121	Blueprint Reading Mechanical	1	2	2
MAC	112	Machining Technology II	2	12	6
MAC	124	CNC Milling	1	3	2
MAC	151	Machining Calculations	1	2	2



**First Year-Summer**

ENG	101	Applied Communications	3	0	3
MAC	113	Machining Technology III	2	12	6
MAT	110	Mathematical Measurement and Literacy	2	2	3

# COSMETOLOGY

A55140 (Associate Degree)    D55140 (Diploma)

This curriculum is designed to provide competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*Although no certificate information is listed below, a student may receive a certificate for completing 1200 hours. For further information, see the Department Chair for Cosmetology.*

## *Associate Degree Program*

Title	Class/Lab/Cred-
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### **I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

### **II. Major Courses**

COS	111	Cosmetology Concepts I	4	0	4
COS	112	Salon I	0	24	8
COS	113	Cosmetology Concepts II	4	0	4
COS	114	Salon II	0	24	8
COS	115	Cosmetology Concepts III	4	0	4
COS	116	Salon III	0	12	4
COS	117	Cosmetology Concepts IV	2	0	2

**III. Other Major Courses**

COS	118	Salon IV	0	21	7
COS	224	Trichology Chemistry	1	3	2
COS	240	Contemporary Design	1	3	2
COS	250	Computerized Salon Operation	1	0	1
CTS	115	Information System Business Concepts	3	0	3

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 65*****Recommended Semester Schedule*****DAY AND NIGHT CLASS****First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
COS	111	Cosmetology Concepts I	4	0	4
COS	112	Salon I	0	24	8
MAT	143	Quantitative Literacy	2	2	3

**First Year-Spring**

COS	113	Cosmetology Concepts II	4	0	4
COS	114	Salon II	0	24	8
ENG	111	Writing and Inquiry	3	0	3

**First Year-Summer**

COS	115	Cosmetology Concepts III	4	0	4
COS	116	Salon III	0	12	4
COS	250	Computerized Salon Operation	1	0	1
Humanities Elective-See list on page 100			3	0	3

**Second Year-Fall**

COS	117	Cosmetology Concepts IV	2	0	2
COS	118	Salon IV	0	21	7
COS	240	Contemporary Design	1	3	2
COS	224	Trichology Chemistry	1	3	2
Social Sciences Elective-See list on page 100			3	0	3

**Second Year-Spring**

COM	231	Public Speaking	3	0	3
CTS	115	Information Systems Business Concepts	3	0	3

## *Diploma Program (D55140)*

Title	Class/Lab/Cred-		
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### **I. General Education Courses**

ENG	101	Applied Communications I	3	0	3
PSY	150	General Psychology	3	0	3

### **II. Major Courses**

COS	111	Cosmetology Concepts I	4	0	4
COS	112	Salon I	0	24	8
COS	113	Cosmetology Concepts II	4	0	4
COS	114	Salon II	0	24	8
COS	115	Cosmetology Concepts III	4	0	4
COS	116	Salon III	0	12	4
COS	117*	Cosmetology Concepts IV	2	0	2

### **III. Other Major Courses**

COS	118*	Salon IV	0	21	7
COS	250	Computerized Salon	1	0	1

**Total Credits: 48**

## *Recommended Semester Schedule*

### **DAY AND NIGHT CLASS**

#### **First Year-Fall**

COS	111	Cosmetology Concepts I	4	0	4
COS	112	Salon I	0	24	8
MAT	101	Applied Mathematics I	3	0	3
PSY	150	General Psychology	3	0	3

#### **First Year-Spring**

COS	113	Cosmetology Concepts II	4	0	4
COS	114	Salon II	0	24	8
ENG	101	Applied Communications I	3	0	3

#### **First Year-Summer**

COS	115	Cosmetology Concepts III	4	0	4
COS	116	Salon III	0	12	4
COS	250	Computerized Salon Operation	1	0	1

#### **Second Year-Fall**

*COS	117	Cosmetology Concepts IV	2	0	2
*COS	118	Salon IV	0	21	7

# COSMETOLOGY- ESTHETICS TECHNOLOGY

C55230 (Certificate)

This curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional Esthetics Technology, business/human relations, product knowledge and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and, upon passing, be licensed and qualified for employment in beauty and cosmetic/skin care salons, as a platform artist, and in related businesses.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*Students may enter this curriculum at the start of any semester. Availability of this curriculum will be determined by a sufficient number of students enrolling in this program.*

Title	Class/Lab/Credit
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## **I. Major Courses**

COS	119	Esthetics Concepts I	2	0	2
COS	120	Esthetics Salon I	0	18	6
COS	125	Esthetics Concepts II	2	0	2
COS	126	Esthetics Salon II	0	18	6

**Total Credits: 16**

## *Recommended Semester Schedule*

### **Student Starting in Fall Semester:**

#### **Fall**

COS	119	Esthetics Concepts I	2	0	2
COS	120	Esthetics Salon I	0	18	6

#### **Spring**

COS	125	Esthetics Concepts II	2	0	2
COS	126	Esthetics Salon II	0	18	6

### **Student Starting in Spring Semester:**

#### **Spring**

COS	119	Esthetics Concepts I	2	0	2
COS	120	Esthetics Salon I	0	18	6

**Summer**

COS	125A	Esthetics Concepts II A	1	0	1
COS	126A	Exthetics Salon II A	0	9	3

**Fall**

COS	125B	Esthetics Concepts II B	1	0	1
COS	126B	Esthetics Salon II B	0	9	3

**Student Starting in Summer Semester:****Summer**

COS	119A	Esthetics Concepts I A	1	0	1
COS	120A	Esthetics Salon I A	0	9	3

**Fall**

COS	119B	Esthetics Concepts I B *	1	0	1
COS	120B	Esthetics Salon I B*	0	9	3
COS	125A	Esthetics Concepts II A **	1	0	1
COS	126A	Exthetics Salon II A **	0	9	3

**Spring**

COS	125B	Esthetics Concepts II B*	1	0	1
COS	126B	Esthetics Salon II B*	0	9	3

\*First 8 weeks only

\*\*Second 8 weeks only

*Students may enter this curriculum at the start of any semester. Availability of this curriculum will be determined by a sufficient number of students enrolling in this program.*

# COSMETOLOGY -

## MANICURIST/NAIL TECHNOLOGY

C55400 (Certificate)

This curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the nail technology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional nail technology, business/computer principles, product knowledge and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and nail salons, as a platform artist, and in related businesses.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*This curriculum was designed to be taken during the fall or spring semester. No classes are offered during the summer semester. Availability of this curriculum will be determined by a sufficient number of students enrolling in this program. COS 121 will be offered during the first 8 weeks of the semester; COS 122 will be offered during the second 8 weeks of the semester.*

Title			Class/Lab/Credit		
<b>I. Major Courses</b>					
COS	121	Manicure/Nail Technology I	4	6	6
COS	222	Manicure/Nail Technology II	4	6	6

**Total Credits: 12**

### *Recommended Semester Schedule*

#### **First Year-Fall\* or Spring\***

COS	121	Manicure/Nail Technology I	4	6	6
COS	222	Manicure/Nail Technology II	4	6	6

# COSMETOLOGY- INSTRUCTOR

C55160 (Certificate)

This curriculum provides a course of study for learning the skills needed to teach the theory and practice of cosmetology as required by the North Carolina Board of Cosmetic Arts.

Course work includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching and development of evaluation instruments.

Graduates of the program may be employed as cosmetology instructors in public or private education and business.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*This curriculum is offered on an individual basis in fall and spring semester, based on student demand and waiting list.*

Title	Class/Lab/Credit
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## I. Major Courses

COS	271	Instructor Concepts I	5	0	5
COS	272	Instructor Practicum I	0	21	7
COS	273	Instructor Concepts II	5	0	5
COS	274	Instructor Practicum II	0	21	7

**Total Credits: 24**

## *Recommended Semester Schedule*

### First Year-Fall, Spring

COS	271	Instructor Concepts I**	5	0	5
and					
COS	272	Instructor Practicum I**	0	21	7
or					
COS	273	Instructor Concepts II**	5	0	5
and					
COS	274	Instructor Practicum II**	0	21	7

*\*This curriculum is offered on an individual basis in fall or spring semesters, based on student demand.*

*\*\*Students may select COS 271 and COS 272 or they may select COS 273 and COS 274 during any one semester. COS 271 and COS 272 are required before COS 273 and COS 274. COE 113 may also be taken.*



# COSMETOLOGY-

## ESTHETICS INSTRUCTOR

C55270 (Certificate)

This curriculum provides a course of study covering the skills needed to teach the theory and practices of esthetics as required by the North Carolina State Board of Cosmetology.

Course work includes all phases of esthetics theory laboratory instruction.

Graduates should be prepared to take the North Carolina Cosmetology State Board Esthetics Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or esthetics school.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*This curriculum is offered on an individual basis in any semester, based on student demand.*

<u>Title</u>	<u>Class/Lab/Credit</u>
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### I. Major Courses

COS	253	Esthetics Instructor I	6	15	11
COS	254	Esthetics Instructor II	6	15	11

**Total Credits: 22**

### *Recommended Semester Schedule*

#### **Student Starting in Fall Semester:**

##### **Fall**

COS	253	Esthetics Instructor I	6	15	11
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##### **Spring**

COS	254	Esthetics Instructor II	6	15	11
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#### **Student Starting in Spring Semester:**

##### **Spring**

COS	253	Esthetics Instructor I	6	15	11
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##### **Summer**

COS	254A	Esthetics Instructor II A	3	8	6
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##### **Fall**

COS	254B	Esthetics Instructor II B	3	7	5
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# COSMETOLOGY - MANICURIST INSTRUCTOR

C55380 (Certificate)

This curriculum provides a course of study covering the skills needed to teach the theory and practices of manicuring as required by the North Carolina State Board of Cosmetology.

Course work includes all phases of manicuring theory laboratory instruction.

Graduates should be prepared to take the North Carolina Cosmetology State Board Manicuring Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or manicuring school.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

*\*This curriculum was designed to be taken during the fall or spring semester. No classes are offered in the summer.*

Title	Class/Lab/Credit
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## I. Major Courses

COS	251	Manicure Instructor Concepts	8	0	8
COS	252	Manicure Instructor Practicum	0	15	5

**Total Credits: 13**

## *Recommended Semester Schedule*

### **First Year-Fall\***

COS	251	Manicure Instructor Concepts	8	0	8
COS	252	Manicure Instructor Practicum	0	15	5

*\*This curriculum is offered on an individual basis in the fall or spring semester based on student demand and to coincide with COS 121 and COS 122.*

# EARLY CHILDHOOD EDUCATION

A55220 (Associate Degree) D55220 (Diploma)

C55220ITC (Certificate) C55220S (Certificate-Special Education)

This curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes childhood growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs; preschools; public and private schools; recreational centers; Head Start Programs; and school age programs.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

**\*Pre-requisite Requirement: Please check course description for pre-requisite information.**

## *Associate Degree Program*

Title	Class/Lab/Cred-
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**I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

**II. Major Courses**

EDU	119	Introduction to Childhood Education	4	0	4
EDU	131	Child, Family & Community *	3	0	3
EDU	146	Child Guidance *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	153	Health, Safety, Nutrition *	3	0	3

EDU	221	Children with Exceptionalities *	3	0	3
EDU	234	Infants, Toddlers, and Twos	3	0	3
EDU	271	Educational Technology *	2	2	3
EDU	280	Language & Literacy Experiences *	3	0	3
EDU	284	Early Childhood Capstone	1	9	4
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3

### III. Other Major Courses (Must be selected from identified prefixes)

CIS	110	Intro. to Computers	2	2	3
EDU	252	Math and Science Activities *	3	0	3
EDU	261	Early Childhood Administration I *	3	0	3
PSY	150	General Psychology	3	0	3

### Other Major Requirements:

#### Take 3 credits from:

EDU	153A	Lab *	0	2	1
EDU	184	Early Childhood Practicum	1	3	2
EDU	222	Learn with Behavioral Disorder*	3	0	3
EDU	223	Specific Learning Disability*	3	0	3
EDU	247	Sensory & Physical Disability*	3	0	3
EDU	248	Developmental Delays*	3	0	3
EDU	262	Early Childhood Administration II	3	0	3

### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 69**

## *Recommended Semester Schedule*

### First Year-Fall

ACA	115	Success and Study Skills	0	2	1
EDU	119	Introduction to Childhood Education	4	0	4
ENG	111	Expository Writing	3	0	3
MAT	143	Quantitative Literacy	2	2	3
PSY	244	Child Development I	3	0	3

### First Year-Spring

EDU	146	Child Guidance	3	0	3
EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab *	0	2	1
EDU	184	Early Childhood Practicum	1	3	2
PSY	245	Child Development II	3	0	3
SOC	213	Sociology of the Family	3	0	3

**First Year-Summer**

CIS	110	Introduction to Computers	2	2	3
EDU	146	Child Guidance *	3	0	3
PSY	150	General Psychology	3	0	3

**Second Year-Fall**

EDU	131	Child, Family, & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	221	Children With Exceptionalities *	3	0	3
EDU	261	Early Childhood Admin. I*	3	0	3
Social/Behavioral Science Elective-see lit on page 100			3	0	3

**Second Year-Spring**

EDU	234	Infant, Toddler and Two's *	3	0	3
EDU	271	Educational Technology *	2	2	3
EDU	280	Language & Literacy Experiences *	3	0	3
EDU	284	Early Childhood Practicum *	1	9	4

**Second Year-Summer**

COM	231	Public Speaking	3	0	3
EDU	252	Math and Science Activities *	3	0	3
Humanities Elective-See list on page 100			3	0	3

***Diploma Program (D55220)***

Title	Class/Lab/Cred-				
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**I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
COM	231	Public Speaking	3	0	3
MAT	143	Quantitative Literacy	2	2	3

**II. Major Courses**

EDU	119	Introduction to Childhood Education	4	0	4
EDU	131	Child, Family & Community*	3	0	3
EDU	146	Child Guidance*	3	0	3
EDU	151	Creative Activities*	3	0	3
EDU	153	Health, Safety, and Nutrition*	3	0	3
EDU	221	Children with Exceptionalities*	3	0	3
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3

**III. Other Major Courses**

CIS	110	Introduction to Computers	2	2	3
EDU	153A	Lab*	0	2	1
EDU	184	Early Childhood Practicum*	1	3	2

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 41*****Recommended Semester Schedule*****First Year-Fall**

CIS	110	Introduction to Computers	2	2	3
EDU	119	Introduction to Childhood Education	4	0	4
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
PSY	244	Child Development I	3	0	3

**First Year-Spring**

EDU	146	Child Guidance *	3	0	3
EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab *	0	2	1
EDU	184	Early Childhood Practicum	1	3	2
PSY	245	Child Development II	3	0	3

**First Year-Summer**

EDU	146	Child Guidance *	3	0	3
CIS	110	Introduction to Computers	2	2	3

**Second Year-Fall**

COM	231	Public Speaking	3	0	3
EDU	131	Child, Family & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	221	Children With Exceptionalities *	3	0	3

***Early Childhood Certificate Program (C55220)***

Title	Class/Lab/Credit				
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**I. Major Courses**

EDU	119	Introduction to Childhood Education	4	0	4
EDU	131	Child, Family & Community*	3	0	3
EDU	146	Child Guidance*	3	0	3
EDU	151	Creative Activities*	3	0	3
PSY	244	Child Development I	3	0	3

**II. Other Major Courses**

EDU	184	Early Childhood Practicum*	1	3	2
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**Total Credits: 18**

### *Recommended Semester Schedule*

#### **First Year-Fall**

EDU	119	Introduction to Early Childhood Education	4	0	4
EDU	131	Child, Family & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
PSY	244	Child Development I	3	0	3

#### **First Year-Spring**

EDU	184	Early Childhood Practicum*	1	3	2
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#### **First Year-Summer**

EDU	146	Child Guidance *	3	0	3
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### *Infant/Toddler Care Certificate Program (C55220ITC)*

Title	Class/Lab/Cred-
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#### **I. Major Courses**

EDU	119	Introduction to Childhood Education	4	0	4
EDU	131	Child, Family & Community*	3	0	3
EDU	153	Health, Safety, and Nutrition *	3	0	3
PSY	244	Child Development I	3	0	3

#### **II. Other Major Courses**

EDU	153A	Health, Safety and Nutrition Lab *	0	2	1
EDU	234	Infant, Toddler, & Twos *	3	0	3

**Total Credits: 17**

### *Recommended Semester Schedule*

#### **First Year-Fall**

EDU	119	Introduction to Childhood Education	4	0	4
EDU	131	Child, Family & Community *	3	0	3
PSY	244	Child Development I	3	0	3

#### **First Year-Spring**

EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab*	0	2	1
EDU	234	Infant, Toddler, & Twos *	3	0	3

**Total Credits: 17**

## *Special Education Certificate Program-Early Childhood (C55220S)*

Title

Class/Lab/Credit

### **I. Major Courses**

EDU	146	Child Guidance	3	0	3
EDU	221	Children with Exceptionalities	3	0	3
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3

### **II. Other Major Courses**

EDU	223	Specific Learning Disabilities	3	0	3
EDU	247	Sensory-Physical Disabilities	3	0	3

**Total Credits: 18**

### *Recommended Semester Schedule*

#### **First Year-Fall**

PSY	244	Child Development I	3	0	3
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#### **First Year-Spring**

PSY	245	Child Development II	3	0	3
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#### **First Year-Summer**

EDU	146	Child Guidance *	3	0	3
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#### **First Year-Fall**

EDU	221	Children with Exceptionalities *	3	0	3
EDU	247	Sensory-Physical Disabilities *	3	0	3

#### **Second Year-Spring**

EDU	223	Specific Learning Disabilities *	3	0	3
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# SCHOOL-AGE EDUCATION

A55440 (Associate Degree) D55440 (Diploma) C55440 (Certificate)

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers.

Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after-school programs, paraprofessional positions in public/ private schools, recreational centers, and other programs that work with school-age populations.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

**\*Pre-requisite Requirement: Please check course description for pre-requisite information.**

Title	Class/Lab/Credit
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## I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

## II. Major Courses

EDU	131	Child, Family & Community *	3	0	3
EDU	163	Classroom Mgt. & Inst.	3	0	3
EDU	216	Foundations of Education	4	0	4
EDU	221	Children with Exceptionalities *	3	0	3
EDU	271	Educational Technology *	2	2	3
EDU	285	Internship Experiences- School Age*	1	9	4
EDU	289	Adv. Issues-School Age *	2	0	2
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3

### III. Other Major Courses

CIS	110	Intro. to Computers	2	2	3
EDU	151	Creative Activities*	3	0	3
EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab*	0	2	1
EDU	161	Intro. to Exceptional Children	3	0	3
EDU	175	Intro. to Trade and Industrial Educ.	3	0	3
EDU	177	Instructional Methods	2	2	3
EDU	179	Vocational Student Organizations	3	0	3
EDU	243	Learning Theory	3	0	3
EDU	252	Math & Science Activities *	3	0	3
EDU	280	Language & Literacy Experiences *	3	0	3
EDU	281	Instructional Strategies/Reading & Writing *	2	2	3
PSY	150	General Psychology	3	0	3

### IV. Other Required Courses

ACA115	Success and Study Skills	0	2	1
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**Total Credits: 66**

### *Recommended Semester Schedule*

#### First Year-Fall

ACA	115	Success and Study Skills	0	2	1
EDU	163	Classroom Management	3	0	3
EDU	216	Foundations of Education *	4	0	4
MAT	143	Quantitative Literacy	2	2	3
PSY	244	Child Development I	3	0	3

#### First Year-Spring

EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab *	0	2	1
EDU	271	Educational Technology *	2	2	3
ENG	111	Writing and Inquiry	3	0	3
PSY	245	Child Development II	3	0	3
SOC	213	Sociology of the Family	3	0	3

#### First Year-Summer

CIS	110	Introduction to Computers	2	2	3
		Choosae from Fine Arts/Humanities Elective	3	0	3

#### Second Year-Fall

EDU	131	Child, Family, & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	221	Children With Exceptionalities *	3	0	3

EDU	289	Adv. Issues- School Age *	2	0	2
PSY	150	General Psychology	3	0	3
<b>Second Year-Spring</b>					
EDU	280	Language & Literacy Exp. *	3	0	3
EDU	281	Instructional Strategies-Reading/Writing *	2	2	3
EDU	285	Intern. Experiences-School Age *	1	9	4
		Social/Behavioral Science Elective	3	0	3
<b>Second Year-Summer</b>					
COM	231	Public Speaking	3	0	3
EDU	252	Math & Science Activities *	3	0	3
<b>Total Credits: 69</b>					

### ***School-Age Diploma Program (D55440)***

Title			Class/Lab/Credit		
<b>I. General Education Courses</b>					
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
<b>II. Major Courses</b>					
EDU	131	Child, Family & Community*	3	0	3
EDU	163	Classroom Management & Instruction*	3	0	3
EDU	216	Foundations of Education*	4	0	4
EDU	221	Children with Exceptionalities*	3	0	3
EDU	271	Educational Technology	2	2	3
EDU	285	Internship Experiences- School Age*	1	9	4
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3
<b>III. Other Major Courses</b>					
CIS	110	Intro. to Computers	2	2	3
EDU	151	Creative Activities*	3	0	3
EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab*	0	2	1
<b>IV. Other Required Courses</b>					
ACA115	Success and Study Skills		0	2	1
<b>Total Credits: 43</b>					

## *Recommended Semester Schedule*

### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
EDU	163	Classroom Management	3	0	3
EDU	216	Foundations of Education *	4	0	4
MAT	143	Quantitative Literacy	2	2	3
PSY	244	Child Development I	3	0	3

### **First Year-Spring**

EDU	153	Health, Safety, and Nutrition *	3	0	3
EDU	153A	Lab *	0	2	1
EDU	271	Educational Technology *	2	2	3
ENG	111	Writing and Inquiry	3	0	3
PSY	245	Child Development II	3	0	3

### **First Year-Summer**

EDU	163	Classroom Mgt. & Inst. *	3	0	3
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### **Second Year-Fall**

CIS	110	Introduction to Computers	3	0	3
EDU	131	Child, Family, & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	221	Children With Exceptionalities *	3	0	3

### **Second Year-Spring**

EDU	285	Internship Exp.- School Age *	1	9	4
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## *School-Age Certificate (C55440)*

<u>Title</u>	<u>Class/Lab/Credit</u>
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### **I. Major Courses**

EDU	131	Child, Family & Community*	3	0	3
EDU	216	Foundations of Education*	4	0	4
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3

### **II. Other Major Courses**

EDU	151	Creative Activities*	3	0	3
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**Total Credits: 16**

### ***Recommended Semester Schedule***

#### **First Year-Fall**

EDU	131	Child, Family, & Community *	3	0	3
EDU	151	Creative Activities *	3	0	3
EDU	216	Foundations of Education *	4	0	4
PSY	244	Child Development I	3	0	3

#### **First Year-Spring**

PSY	245	Child Development II	3	0	3
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# ELECTRICAL SYSTEMS TECHNOLOGY

A35130 (Associate Degree) D35130 (Diploma)

This curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation and maintenance of electrical/electronics systems.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

## *Associate Degree Program*

Title	Class/Lab/Cred-
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### **I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
*MAT	171	Pre-Calculus Algebra	3	2	4

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

\*Students planning to pursue a Bachelor's degree should take MAT 171, 171A, MAT 172, MAT 172A and MAT 271.

### **II. Major Courses**

ELC	112	DC/AC Electricity	3	6	5
ELC	113	Residential Wiring	2	6	4
ELC	128	Introduction to PLC	2	3	3
ELN	231	Industrial Controls	2	3	3

### **III. Concentration**

ELN	133	Digital Electronics	3	3	4
ELN	229	Industrial Electronics	3	3	4
ELN	233	Microprocessor Fundamentals	3	3	4

**IV. Other Major Courses** Select 22 credits

EGR	125	Appl. Software for Technology	1	2	2
ELC	115	Industrial Wiring	2	6	4
ELC	213	Instrumentation	3	2	4
HYD	110	Hydraulics/Pneumatics I	2	3	3
ISC	110	Workplace Safety	1	0	1
PCI	264	Process Control with PLC's	3	3	4
PHY	131	Physics-Mechanics	3	2	4
WBL	111	Work-Based Learning	0	10	1

**V. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 66*****Recommended Semester Schedule*****First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
EGR	125	Appl. Software for Technology	1	2	2
ELC	113	Residential Wiring	2	6	4
HYD	110	Hydraulics/Pneumatics I	2	3	3
ISC	110	Workplace Safety	1	0	1
MAT	171	Pre-Calculus Algebra	3	2	4

**First Year-Spring**

ELC	112	DC/AC Electricity	3	6	5
ELC	128	Introduction to PLC	2	3	3
ELN	229	Industrial Electronics	3	3	4
ELN	231	Industrial Controls	2	3	3
Humanities/FA Elective-See list on page 100			3	0	3

**First Year-Summer**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
Social Sciences Elective-See list on page 100			3	0	3

**Second Year-Fall**

ELC	213	Instrumentation	3	2	4
ELN	133	Digital Electronics	3	3	4
ELN	229	Industrial Electronics	3	3	4
PCI	264	Process Control with PLC's	3	3	4

**Second Year-Spring**

ELC	115	Industrial Wiring	2	6	4
ELN	233	Microprocessor Fundamentals	3	3	4
PHY	131	Physics-Mechanics	3	2	4

***Diploma Program (D35130)***

Title	Class/Lab/Credit				
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**I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
MAT	171	Pre-Calculus Algebra	3	2	4

**II. Major Courses**

ELC	112	DC/AC Electricity	3	6	5
ELC	113	Residential Wiring	2	6	4
ELC	128	Introduction to PLC	2	3	3
ELN	133	Digital Electronics	3	3	4
ELN	229	Industrial Electronics	3	3	4
ELN	231	Industrial Controls	2	3	3

**III. Other Major Courses**

EGR	125	Appl. Software for Technology	1	2	2
ELC	115	Industrial Wiring	2	6	4
ISC	110	Workplace Safety	1	0	1

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 38*****Recommended Semester Schedule*****First Year-Fall**

EGR	125	Appl. Software for Technology	2	6	4
ELC	113	Residential Wiring	2	6	4
MAT	171	Pre-Calculus Algebra	3	2	4
ISC	110	Workplace Safety	1	0	1

**First Year-Spring**

ELC	112	DC/AC Electricity	3	6	5
ELC	128	Introduction to PLC	2	3	3
ELN	231	Industrial Controls	2	3	3

**First Year-Summer**

ENG	111	Writing and Inquiry	3	0	3
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**Second Year-Fall**

ELN	133	Digital Electronics	3	3	4
ELN	229	Industrial Electronics	3	3	4

**Second Year-Spring**

ELC	115	Industrial Wiring	2	6	4
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# GENERAL EDUCATION

## A10300 (Associate Degree)

The Associate in General Education is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth and development.

Course work includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers will be provided.

Through these skills, students will have a sound base for lifelong learning. Graduates are prepared for advancements within their field of interest and become better qualified for a wide range of employment opportunities.

**\*The Placement Test is required for all courses listed in this program.**

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

Title	Class/Lab/Credit
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### I. General Education Courses 15 shc required

#### English Composition 6 shc

ENG	111	Writing and Inquiry	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	3

#### Humanities/Fine Arts 3 shc

ENG	241	British Literature I	3	0	3
or					
ENG	242	British Literature II	3	0	3
or					
ENG	231	American Literature I	3	0	3
or					
ENG	232	American Literature II	3	0	3
or					
ENG	251	Western World Literature I	3	0	3
or					
ENG	273	African-American Literature	3	0	3

#### Social/Behavioral Sciences 3 shc

HIS	111	World Civilizations I	3	0	3
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**Natural Science/Mathematics Choose 3 (three) shc from the following:**

MAT	140	Survey of Math	3	0	3
MAT	140A	Survey of Math Lab	0	2	1
MAT	151	Statistics I	3	0	3
MAT	161	College Algebra	3	0	3
MAT	171	Precalculus Algebra	3	0	3
MAT	175	Precalculus	4	0	4
MAT	271	Calculus I	3	2	4

**II. Major Courses****A. Core**

1. Required Courses
2. Required Subject Areas

**B. Concentration****C. Other Major Courses****III. Other Required Courses**

After meeting program requirements, electives may be selected from the following approved courses: (Choose 49-50 shc.) 3 shc must be CIS 110.

**Computer Science 3 shc**

CIS	110	Introduction to Computers	2	2	3
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**Health/Physical Education**

PED	110	Fit and Well For Life	1	2	2
PED	111	Physical Fitness	0	3	1
PED	113	Aerobics I	0	3	1
PED	117	Weight Training	0	3	1
PED	120	Walking For Fitness	0	3	1
PED	130	Tennis-Beginning	0	2	1
PED	128	Golf-Beginning	0	2	1
PED	139	Bowling-Beginning	0	2	1
PED	152	Swimming-Beginning	0	2	1
PED	155	Water Aerobics	0	3	1

**Humanities/Fine Arts**

ART	111	Art Appreciation	3	0	3
COM	231	Public Speaking	3	0	3
DRA	111	Theatre Appreciation	3	0	3
DRA	126	Storytelling	3	0	3
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
ENG	241	British Literature I	3	0	3

ENG	242	British Literature II	3	0	3
ENG	251	Western World Literature I	3	0	3
ENG	273	African-American Literature	3	0	3
FRE	111	Elementary French I*	3	0	3
FRE	112	Elementary French II*	3	0	3
HUM	122	Southern Culture	3	0	3
MUS	110	Music Appreciation	3	0	3
PHI	210	History of Philosophy	3	0	3
PHI	240	Introduction to Ethics	3	0	3
REL	110	World Religion	3	0	3
REL	211	Introduction to Old Testament	3	0	3
REL	212	Introduction to New Testament	3	0	3
SPA	111	Elementary Spanish I	4	0	4
SPA	112	Elementary Spanish II	4	0	4

### **Social/Behavioral Sciences**

ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Principles of Macroeconomics	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
HIS	236	North Carolina History	3	0	3
POL	120	American Government	3	0	3
POL	130	State and Local Government	3	0	3
POL	210	Comparative Government	3	0	3
PSY	150	General Psychology	3	0	3
PSY	239	Psychology of Personality	3	0	3
PSY	241	Developmental Psychology	3	0	3
PSY	244	Child Development I	3	0	3
PSY	245	Child Development II	3	0	3
PSY	281	Abnormal Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3
SOC	213	Sociology of the Family	3	0	3
SOC	220	Social Problems	3	0	3
SOC	242	Sociology of Deviance	3	0	3

### **Natural Science**

BIO	155	Nutrition	3	0	3
BIO	163	Basic Anatomy and Physiology	4	2	5
BIO	165	Anatomy and Physiology I	3	3	4
BIO	166	Anatomy and Physiology II	3	3	4
BIO	168	Anatomy and Physiology I	3	3	4
BIO	169	Anatomy and Physiology II	3	3	4
BIO	175	General Microbiology	2	2	3
BIO	111	General Biology I	3	3	4
BIO	112	General Biology II	3	3	4

BIO	275	Microbiology	3	3	4
CHM	131	Introduction to Chemistry	3	0	3
CHM	131A	Introduction to Chemistry Lab	0	3	1
CHM	132	Organic and Biochemistry	3	3	4
CHM	151	General Chemistry I	3	3	4
CHM	152	General Chemistry II	3	3	4
CHM	251	Organic Chemistry I	3	3	4
CHM	252	Organic Chemistry II	3	3	4
CHM	271	Biochemical Principles	3	3	4

### Mathematics

MAT	115	Mathematical Models	2	2	3
MAT	143	Quantitative Literacy	2	2	3
MAT	151	Statistics I	3	0	3
MAT	151A	Statistics I Lab	0	2	1
MAT	161	College Algebra	3	0	3
MAT	161A	College Algebra Lab	0	2	1
MAT	171	Precalculus Algebra	3	0	3
MAT	171A	Precalculus Algebra Lab	0	2	1
MAT	172	Precalculus Trigonometry	3	0	3
MAT	172A	Precalculus Trigonometry Lab	0	2	1
MAT	175	Precalculus	4	0	4
MAT	175A	Precalculus Lab	0	2	1
MAT	271	Calculus I	3	2	4
MAT	272	Calculus II	3	2	4
MAT	273	Calculus III	3	2	4

*Students must meet the receiving university's foreign language and/or health and physical education requirements either before or after transfer to the senior institution.*

### Other Electives

ACA	115	Success & Study Skills	0	2	1
ACA	122	College Transfer Success	1	0	1
ACC	120	Principles of Financial Accounting	3	2	4
ACC	121	Principles of Managerial Accounting	3	2	4
BUS	110	Introduction to Business	3	0	3
BUS	115	Business Law	3	0	3
CIS	113	Computer Basics	0	2	1
CIS	115	Introduction to Programming and Logic	2	2	3
CSC	134	C++ Programming	2	3	3
CSC	148	JAVA Programming	2	3	3
MED	121	Medical Terminology I	3	0	3
MED	122	Medical Terminology II	3	0	3
NAS	101	Nursing Assistant I	3	2	3 5
NAS	102	Nursing Assistant II	3	2	6 6
NAS	103	Nursing Assistant III	2	0	0 2
NUT	110	Nutrition	3	0	0 3

**Total Credits: 64-65**

## *Recommended Semester Schedule*

**\*All classes are subject to a class size minimum. Certain classes may not be offered when this minimum is not met.**

**\*\*Students who do not follow the recommended semester schedule below cannot expect to complete this degree in two years.**

### **First Year-Fall**

ENG	111	Writing and Inquiry	3	0	3
HIS	111	World Civilizations I	3	0	3
MAT	143	Quantitative Literacy	2	2	3
or					
MAT	161	College Algebra	3	0	3
MAT	161A	College Algebra Lab	0	2	1
or					
MAT	171	Precalculus Algebra	3	0	3
MAT	171A	Precalculus Algebra Lab	0	2	1
or					
MAT	175	Precalculus	4	0	4
MAT	175A	Precalculus Lab	0	2	1
or					
MAT	271	Calculus I	3	2	4
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3

### **First Year-Spring**

ENG	112	Writing/Research in the Disciplines	3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3

### **Second Year-Fall**

ENG	231	American Literature I	3	0	3
or					
ENG	241	British Literature I	3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3
Elective-See list of other required courses			3	0	3

**Second Year-Spring**

CIS110 Introduction to Computers	2	2	3
Elective-See list of other required courses	3	0	3
Elective-See list of other required courses	3	0	3
Elective-See list of other required courses	3	0	3
Elective-See list of other required courses	3	0	3

# GENERAL OCCUPATIONAL TECHNOLOGY (GOT)

A55280 (Associate of Applied Science Degree)

**Curriculum Description:**

The General Occupational Technology (GOT) curriculum provides individuals with the opportunity to upgrade their skills and earn an associate degree by taking courses that offer specific job knowledge and skills.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be developed from any non-developmental level courses from approved curriculum programs of study offered by MTCC.

Graduates will become more effective and diverse workers, better qualified for advancements within their field of employment and better equipped for a wide range of entry-level employment opportunities.

**\*\*All courses included in the individualized GOT curriculum must be taken from approved associate of applied science, diploma or certificate programs.**

**General Education Requirements:**

A.A.S. General Education Core: 15 semester credit hours

Communication

A.A.S. programs must contain a minimum of 6 credit hours(two courses) in communications. Students may choose from the following:

ENG 111 Writing and Inquiry	3
ENG 112 Writing/Research in the Disciplines	3
COM 110 Introduction to Communication	3
COM 231 Public Speaking	3

Humanities/Fine Arts

A.A.S. and Diploma programs must contain a minimum of 3 credit hours(1 course) in humanities/fine arts. Students may choose from the following:

ART 111 Art Appreciation	3
ART 114 Art History Survey I	3
ART 115 Art History Survey II	3



DRA 111 Theatre Appreciation	3
DRA 126 Storytelling	3
ENG 231 American Literature I	3
ENG 232 American Literature II	3
ENG 241 British Literature I	3
ENG 242 British Literature II	3
ENG 251 Western World Literature I	3
ENG 273 African-American Literature	3
HUM 115 Critical Thinking	3
HUM 122 Southern Culture	3
MUS 110 Music Appreciation	3
MUS 112 Introduction to Jazz	3
MUS 210 History of Rock Music	3
PHI 210 History of Philosophy	3
PHI 215 Philosophical Issues	3
PHI 240 Introduction to Ethics	3
REL 110 World Religions	3
REL 211 Introduction to Old Testament	3
REL 212 Introduction to New Testament	3
SPA 111 Elementary Spanish I	3
SPA 112 Elementary Spanish II	3

#### Social/Behavioral Science

A.A.S. and Diploma programs must contain a minimum of 3 credit hours(1 course) in humanities/fine arts. Students may choose from the following:

ECO 251 Principles of Microeconomics	3
ECO 251 Principles of Macroeconomics	3
HIS 111 World Civilizations I	3
HIS 112 World Civilizations II	3
HIS 131 American History I	3
HIS 132 American History II	3
POL 120 American Government	3
POL 130 State and Local Government	3
POL 210 Comparative Government	3
PSY 150 General Psychology	3
PSY 239 Psychology of the Family	3
PSY 241 Developmental Psychology	3
PSY 244 Child Development I	3
PSY 244 Child Development II	3
PSY 281 Abnormal Psychology	3
SOC 210 Introduction to Sociology	3
SOC 213 Sociology of the Family	3
SOC 220 Social Problems	3
SOC 242 Sociology of Deviance	3

## Natural Science/Mathematics

A.A.S. and Diploma programs must contain a minimum of 3 credit hours(1 course) in humanities/fine arts. Students may choose from the following:

BIO 111 General Biology I	4
BIO 112 General Biology II	4
CHM 131 Introduction to Chemistry	3
CHM 131A Introduction to Chemistry Lab	1
MAT 110 Math Measurement and Literacy	3
MAT 121 Algebra and Trigonometry I	3
MAT 143 Quantitative Literacy	3
MAT 152 Statistical Methods I	3
MAT 171 Precalculus Algebra	4
MAT 172 Precalculus Trigonometry	4
MAT 271 Calculus I	4
MAT 272 Calculus II	4
MAT 273 Calculus III	4
MAT 280 Linear Algebra	3
MAT 285 Differential Equations	3

## Major Courses:

A.A.S. Major Courses: 49 semester credit hours

\*\*Of the 49, 18 credit hours must be selected from courses of associate degree-level curriculum programs offered at the College

\*\*Thirty-one additional hours must be chosen from courses in curriculums offered by the College, including a maximum of eight credit hours through work experience, cooperative education, practicums and internships.

## Other Required Hours:

ACA 115 Success and Study Skills	1
ACA 122 College Transfer Success	1
ACC 110 Ten-Key Skills	1
ACC 115 College Accounting	4
ACC 120 Principles of Financial Accounting	4
ACC 121 Principles of Managerial Accounting	4
ACC 122 Principles of Financial Accounting II	3
ACC 129 Individual Income Taxes	3
ACC 130 Business Income Taxes	3
ACC 140 Payroll Accounting	2
ACC 150 Accounting Software Applications	2
ACC 152 Advanced Software Applications	2

ACC 180 Practices in Bookkeeping	3
ACC 220 Intermediate Accounting I	4
ACC 221 Intermediate Accounting II	4
ACC 225 Cost Accounting	3
ACC 227 Practices in Accounting	3
ACC 240 Government and Not-for-Profit Accounting	3
ACC 250 Advanced Accounting	3
ACC 269 Audit and Assurance Services	3
AHR 110 Introduction to Refrigeration	5
AHR 111 HVACR Electricity	3
AHR 112 Heating Technology	4
AHR 113 Comfort Cooling	4
AHR 114 Heat Pump Technology	4
AHR 115 Refrigeration Systems	2
AHR 120 HVACR Maintenance	2
AHR 125 HVAC Electronics	2
AHR 130 HVAC Controls	3
AHR 135 Transportation Refrigeration	4
AHR 160 Refrigerant Certification	1
AHR 180 HVACR Customer Relations	1
AHR 210 Residential Building Code	2
AHR 211 Residential System Design	3
AHR 235 Refrigeration Design	3
AHR 245 Chiller Systems	2
ART 111 Art Appreciation	3
ART 114 Art History Survey I	3
ART 115 Art History Survey II	3
AUB 111 Painting and Refinishing I	4
AUB 112 Painting and Refinishing II	4
AUB 114 Special Finishes	2
AUB 121 Non-Structural Damage I	3
AUB 122 Non-Structural Damage II	3
AUB 131 Structural Damage I	4
AUB 132 Structural Damage II	4
AUB 136 Plastics and Adhesives	3
AUB 141 Mechanical and Electrical Components I	3
AUB 160 Body Shop Operations	1
AUB 162 Autobody Estimating	2
AUT 113 Automotive Servicing I	2
AUT 114 Safety and Emissions	2
AUT 114A Safety and Emissions Lab	1
AUT 116 Engine Repair	3
AUT 116A Engine Repair Lab	1
AUT 141 Suspension and Steering Systems	3
AUT 141A Suspension and Steering Systems Lab	1

AUT 151 Brake Systems	3
AUT 151A Brake Systems Lab	1
AUT 161 Basic Auto Electricity	5
AUT 181 Engine Performance I	3
AUT 181A Engine Performance I Lab	1
AUT 183 Engine Performance II	4
AUT 212 Auto Shop Management	3
AUT 221 Automatic Transmissions/Transaxles	3
AUT 221A Auto Trans/Transaxles Lab	1
AUT 231 Manual Transmissions/Ax/Drtrains	3
AUT 231A Manual Transmissions/Ax/Drtrains Lab	1
BIO 111 General Biology I	4
BIO 112 General Biology II	4
BIO 155 Nutrition	3
BIO 163 Basic Anatomy and Physiology	5
BIO 168 Anatomy and Physiology I	4
BIO 169 Anatomy and Physiology II	4
BIO 175 General Microbiology	3
BIO 275 Microbiology	4
BPR 111 Print Reading	2
BPR 121 Blueprint Reading: Mechanical	2
BPR 122 Blueprint Reading: Mechanical Advanced	2
BPR 130 Print Reading-Construction	3
BPR 135 Schematics and Diagrams	2
BUS 110 Introduction to Business	3
BUS 115 Business Law I	3
BUS 125 Personal Finance	3
BUS 135 Principles of Supervision	3
BUS 137 Principles of Management	3
BUS 147 Business Insurance	3
BUS 153 Human Resource Management	3
BUS 225 Business Finance	3
BUS 230 Small Business Management	3
BUS 240 Business Ethics	3
BUS 253 Leadership and Management Skills	3
BUS 260 Business Communication	3
CAR 110 Introduction to Carpentry	2
CAR 111 Carpentry I	8
CAR 112 Carpentry II	8
CAR 113 Carpentry III	6
CAR 114 Residential Building Codes	3
CAR 115 Residential Planning/Estimating	3
CAR 116 Metal Framing	2
CAR 150 Concrete Construction	5
CHM 131 Introduction to Chemistry	3

CHM 131A Introduction to Chemistry Lab	1
CHM 132 Organic and Biochemistry	4
CHM 151 General Chemistry I	4
CHM 152 General Chemistry II	4
CHM 251 Organic Chemistry I	4
CHM 252 Organic Chemistry II	4
CHM 271 Biochemical Principles	3
CHM 271A Biochemical Principles Lab	1
CIS 070 Fundamentals of Computing	1
CIS 110 Introduction to Computers	3
CIS 111 Basic PC Literacy	2
CIS 113 Computer Basics	1
CIS 115 Introduction to Programming and Logic	3
CJC 100 Basic Law Enforcement Training	19
COM 110 Introduction to Communication	3
COM 231 Public Speaking	3
COS 111 Cosmetology Concepts I	4
COS 112 Salon I	8
COS 113 Cosmetology Concepts II	4
COS 114 Salon II	8
COS 115 Cosmetology Concepts III	4
COS 116 Salon III	4
COS 117 Cosmetology Concepts IV	2
COS 118 Salon IV	7
COS 119 Esthetics Concepts I	2
COS 120 Esthetics Salon I	6
COS 121 Manicure/Nail Technology I	6
COS 125 Esthetics Concepts II	2
COS 126 Esthetics Salon II	6
COS 222 Manicure/Nail Technology II	6
COS 224 Trichology and Chemistry	2
COS 240 Contemporary Design	2
COS 250 Computerized Salon Ops	1
COS 251 Manicure Instructor Concepts	8
COS 252 Manicure Instructor Practicum	5
COS 253 Esthetics Instructor Concepts I	11
COS 254 Esthetics Instructor Concepts II	11
COS 271 Instructor Concepts I	5
COS 272 Instructor Practicum I	7
COS 273 Instructor Concepts II	5
COS 274 Instructor Practicum II	7
CSC 134 C++ Programming	3
CSC 151 JAVA Programming	3
CTS 115 Information Systems Business Concepts	3
CTS 120 Hardware/Software Support	3

CTS 130 Spreadsheet	3
CTS 135 Integrated Software Introduction	4
CTS 285 Systems Analysis and Design	3
CTS 289 System Support Project	3
DBA 110 Database Concepts	3
DDF 110 Cabinet Design/Drafting	2
DES 135 Principles and Elements of Design I	4
DFT 111 Technical Drafting I	2
DFT 119 Basic CAD	2
ECO 251 Principles of Microeconomics	3
ECO 252 Principles of Macroeconomics	3
EDU 114 Introduction to Family Childcare	3
EDU 118 Principles and Practices of Inst Asst	3
EDU 119 Introduction to Early Child Education	4
EDU 131 Child, Family and Communication	3
EDU 144 Child Development I	3
EDU 145 Child Development II	3
EDU 146 Child Guidance	3
EDU 151 Creative Activities	3
EDU 151A Creative Activities Lab	1
EDU 152 Music, Movement and Language	3
EDU 152A Music, Movement and Language Lab	1
EDU 153 Health, Safety and Nutrition	3
EDU 153A Health, Safety and Nutrition Lab	1
EDU 154 Social/Emotional/Behavioral Development	3
EDU 155 Art and Drama for Children	2
EDU 157 Active Play	3
EDU 162 Observation and Assessment in ECE	3
EDU 163 Classroom Management and Instruction	3
EDU 171 Instructional Media	3
EDU 173 Becoming a Professional in ECE	3
EDU 175 Introduction to Trade and Industry	3
EDU 175 Occ Analysis and Course Development	3
EDU 184 Early Childhood Intro Practicum	2
EDU 216 Foundations of Education	4
EDU 221 Children with Exceptional	3
EDU 222 Learn w/ Behavioral Disorders	3
EDU 223 Specific Learning Disabilities	3
EDU 234 Infants, Toddlers and Twos	3
EDU 234A Infants, Toddlers and Twos Lab	1
EDU 235 School-Age Dev and Program	3
EDU 241 Adult-Child Relations	2
EDU 247 Sensory and Physical Disabilities	3
EDU 248 Developmental Delays	3

EDU 251 Exploration Activities	3
EDU 251A Exploration Activities Lab	1
EDU 252 Math and Science Activities	3
EDU 252A Math and Science Activities Lab	1
EDU 261 Early Childhood Administration I	3
EDU 262 Early Childhood Administration II	3
EDU 271 Educational Technology	3
EDU 275 Effective Teaching Training	2
EDU 280 Language and Literacy Experience	3
EDU 280A Language and Literacy Experience Lab	1
EDU 281 Instructor Strategies/Read and Write	3
EDU 284 Early Childhood Capstone Practicum	4
EDU 285 Internship Experience—School Age	4
EDU 289 Advanced Issues/School Age	1
EGR 150 Introduction to Engineering	2
ELC 111 Introduction to Electricity	3
ELC 112 DC/AC Electricity	5
ELC 113 Residential Wiring	4
ELC 115 Industrial Wiring	4
ELC 128 Introduction to PLC	3
ELC 131 Circuit Analysis	4
ELC 213 Instrumentation	4
ELN 131 Analog Electronics	4
ELN 133 Digital Electronics	4
ELN 135 Electronic Circuits	3
ELN 140 Semiconductor Devices	6
ELN 141 Digital Fundamentals	6
ELN 229 Industrial Electronics	4
ELN 231 Industrial Controls	3
ELN 233 Microprocessor Systems	4
ELN 247 Electronic App Project	2
ELN 275 Troubleshooting	2
EGR 125 Appl Software for Tech	2
ENG 101 Applied Communications I	3
ENG 111 Writing and Inquiry	3
ENG 112 Writing/Research in the Disciplines	3
ENG 231 American Literature	3
ENG 232 American Literature II	3
ENG 241 British Literature I	3
ENG 242 British Literature II	3
ENG 251 Western World Literature I	3
ENG 272 Southern Literature	3
ENG 273 African-American Literature	3
FRE 111 Elementary French I	3

FRE 112 Elementary French II	3
GRD 110 Typography I	3
GRD 121 Drawing Fundamentals I	3
GRD 131 Illustration I	2
GRD 141 Graphic Design I	4
GRD 142 Graphic Design II	4
GRD 151 Computer Design Basics	3
GRD 152 Computer Design Tech I	3
GRD 160 Photo Fundamentals I	3
GRD 180 Interactive Design	3
GRD 241 Graphic Design III	4
GRD 242 Graphic Design IV	4
GRD 249 Advanced Design Practice	4
GRD 263 Illustrative Imaging	3
GRD 271 Multimedia Design I	2
GRD 280 Portfolio Design	4
GRD 281 Design of Advertising	2
GRD 285 Client/Media Relations	2
HIT 110 Fundamentals of HIM	3
HIT 112 Health Law and Ethics	3
HIT 114 Health Data Systems/Standards	3
HIT 122 Professional Practice Exp I	1
HIT 124 Professional Practice Exp II	1
HIT 210 Healthcare Statistics	3
HIT 211 ICD Coding	4
HIT 214 CPT/Other Coding Systems	2
HIT 215 Reimbursement Methodology	2
HIT 216 Quality Management	2
HIT 218 Mgmt Principles in HIT	3
HIT 220 Health Informatics and EHRs	2
HIT 221 Lifecycle of HER	3
HIT 222 Prof Practice Exp III	2
HIT 225 Healthcare Informatics	4
HIT 226 Principles of Disease	3
HIT 227 Informatics Project Mgt	3
HIT 280 Professional Issues	2
HIS 111 World Civilizations I	3
HIS 112 World Civilizations II	3
HIS 131 American History I	3
HIS 132 American History II	3
HUM 115 Critical Thinking	3
HUM 122 Southern Culture	3
HYD 110 Hydraulics/Pneumatics I	3
ISC 110 Workplace Safety	1
ISC 112 Industrial Safety	2
ISC 115 Construction Safety	2



ISC 121 Environmental Health and Safety	3
ISC 130 Introduction of Quality Control	3
ISC 210 Oper and Prod Planning	3
MAC 111 Machining Technology I	6
MAC 112 Machining Technology II	6
MAC 113 Machining Technology III	6
MAC 114 Introduction to Metrology	2
MAT 121 Introduction to CNC	2
MAC 122 CNC Turning	2
MAC 124 CNC Milling	2
MAC 151 Machining Calculations	2
MAC 152 Adv Machining Calculations	2
MAC 222 Advanced CNC Turning	2
MAC 224 Advanced CNC Milling	2
MAC 231 CAM: CNC Turning	3
MAC 232 CAM: CNC Milling	3
MNT 110 Introduction to Maintenance Procedures	2
MAS 140 Introduction to Masonry	2
MAT 110 Math Measurement and Literacy	3
MAT 121 Algebra/Trigonometry I	3
MAT 122 Algebra/Trigonometry II	3
MAT 143 Quantitative Literacy	3
MAT 152 Statistical Methods I	4
MAT 171 Precalculus Algebra	4
MAT 172 Precalculus Trigonometry	4
MAT 271 Calculus I	4
MAT 272 Calculus II	4
MAT 273 Calculus III	4
MAT 280 Linear Algebra	3
MAT 285 Differential Equations	3
MEC 111 Machine Processes I	3
MEC 112 Machine Processes II	3
MEC 130 Mechanisms	3
MEC 141 Introduction Mfg Processes	3
MEC 142 Physical Metallurgy	3
MED 120 Survey of Medical Terminology	2
MED 121 Medical Terminology I	3
MED 122 Medical Terminology II	3
MKT 120 Principles of Marketing	3
MKT 121 Retailing	3
MKT 122 Visual Merchandising	3
MKT 123 Fundamentals of Selling	3
MKT 220 Advertising and Sales Promotion	3
MKT 224 International Marketing	3
MKT 225 Marketing Research	3
MKT 227 Marketing Applications	3

MNT 110 Introduction to Maintenance Procedures	2
MNT 111 Maintenance Practices	3
MUS 110 Music Appreciation	3
MUS 112 Introduction to Jazz	3
MUS 210 History of Rock Music	3
NAS 101 Nursing Assistant I	6
NAS 102 Nursing Assistant II	6
NAS 103 Home Health Care	6
NET 110 Networking Concepts	3
NET 125 Networking Basics	3
NET 126 Routing Basics	3
NET 225 Routing and Switching I	3
NET 226 Routing and Switching II	3
NET 240 Network Design	3
NET 260 Internet Development and Support	3
NOS 110 Operating System Concepts	3
NOS 120 Linux/UNIX Single User	3
NOS 130 Windows Single User	3
NOS 230 Windows Admin I	3
NUR 101 Practical Nursing I	11
NUR 102 Practical Nursing II	12
NUR 103 Practical Nursing III	10
NUR 111 Introduction to Health Concepts	8
NUR 112 Health Illness Concepts	5
NUR 113 Family Health Concepts	5
NUR 114 Holistic Health Concepts	5
NUR 211 Health Care Concepts	5
NUR 212 Health System Concepts	5
NUR 214 Nursing Transition Concepts	4
NUT 110 Nutrition	3
OMT 112 Materials Management	3
OMT 143 Just-in-Time	2
OMT 260 Issues in Operations Mgmt	3
OST 080 Keyboarding Literacy	2
OST 122 Office Computations	2
OST 131 Keyboarding	2
OST 134 Text Entry and Formatting	3
OST 135 Adv Text Entry and Formatting	4
OST 136 Word Processing	3
OST 164 Text Editing Applications	3
OST 184 Records Management	3
OST 223 Admin Office Transcription I	3
OST 236 Adv Word/Information Processing	3
OST 241 Medical Office Transcription I	2
OST 242 Medical Office Transcription II	2

OST 244 Medical Document Production	2
OST 247 Procedure Coding	2
OST 248 Diagnostic Coding	2
OST 286 Professional Development	3
OST 289 Office Systems Management	3
PCI 264 Process Control with PLC's	4
PCW 132 Composite Materials Construction	2
PED 110 Fit and Well for Life	2
PED 111 Physical Fitness	1
PED 113 Aerobics I	1
PED 117 Weight Training I	1
PED 120 Walking for Fitness	1
PED 128 Golf-Beginning	1
PED 130 Tennis-Beginning	1
PED 139 Bowling-Beginning	1
PED 152 Swimming-Beginning	1
PED 155 Water Aerobics	1
PHI 210 History of Philosophy	3
PHI 215 Philosophical Issues	3
PHI 240 Introduction to Ethics	3
PHO 110 Fundamentals of Photography	5
PHO 113 History of Photography	3
PHO 115 Basic Studio Lighting	4
PHO 120 Intermediate Photography	4
PHO 132 Small-Format Photography	4
PHO 139 Introduction to Digital Imaging	2
PHO 140 Digital Photo Imaging I	4
PHO 150 Portfolio Development I	4
PHO 180 Creative Problem Solving	3
PHO 216 Documentary Photography	4
PHO 217 Photojournalism I	4
PHO 224 Multimedia Production	3
PHO 226 Portraiture	4
PHO 235 Commercial Photography	4
PHY 110 Conceptual Physics	3
PHY 110A Conceptual Physics Lab	1
PHY 131 Physics-Mechanics	4
PHY 151 College Physics I	4
PHY 152 College Physics II	4
PHY 251 General Physics I	4
PHY 252 General Physics II	4
PLU 111 Introduction to Basic Plumbing	2
POL 120 American Government	3
POL 130 State and Local Government	3

POL 210 Comparative Government	3
PSY 118 Interpersonal Psychology	3
PSY 150 General Psychology	3
PSY 239 Psychology of Personality	3
PSY 241 Developmental Psychology	3
PSY 244 Child Development I	3
PSY 245 Child Development II	3
PSY 281 Abnormal Psychology	3
REF 116 Commercial Systems	4
REF 117 Refrigeration Controls	4
REF 123 Electrical Devices	3
REL 110 World Religions	3
REL 211 Introduction to Old Testament	3
REL 212 Introduction to New Testament	3
SEC 110 Security Concepts	3
SOC 210 Introduction to Sociology	3
SOC 213 Sociology of the Family	3
SOC 220 Social Problems	3
SOC 242 Sociology of Deviance	3
SPA 110 Introduction to Spanish	2
SPA 111 Elementary Spanish I	3
SPA 112 Elementary Spanish II	3
SPA 211 Intermediate Spanish I	3
SPA 212 Intermediate Spanish II	3
SUR 110 Introduction to Surgical Technology	3
SUR 111 Periop Patient Care	7
SUR 122 Surgical Procedures I	6
SUR 123 Surgical Clinical Practice I	7
SUR 134 Surgical Procedures II	5
SUR 135 Surgical Clinical Practice II	4
SUR 137 Prof Success Prep	1
TRN 170 PC Skills for Transportation	2
TRN 180 Basic Welding for Transportation	3
WBL 111 Work-Based Learning I	1
WBL 112 Work-Based Learning II	2
WBL 113 Work-Based Learning III	3
WBL 121 Work-Based Learning II	1
WBL 211 Work-Based Learning IV	1
WEB 110 Internet/Web Fundamentals	3
WEB 111 Introduction to Web Graphics	3
WEB 115 Web Markup and Scripting	3
WEB 120 Introduction to Internet Multimedia	3
WEB 140 Web Development Tools	3
WEB 179 JAVA Web Programming	3

WEB 182 PHP Programming	3
WEB 210 Web Design	3
WEB 225 Content Management Systems	3
WEB 230 Implementing Web Services	3
WEB 250 Database Driven Websites	3
WEB 287 Web E-Portfolio	2
WLD 110 Cutting Processes	2
WLD 112 Basic Welding Processes	2
WLD 115 SMAW(Stick)Plate	5
WLD 116 SMAW(Stick)Plate/Pipe	4
WLD 121 GMAW(MIG)FCAW/Plate	4
WLD 131 GTAW(TIG)Plate	4
WLD 141 Symbols and Specifications	3
WLD 151 Fabrication I	4
WLD 261 Certification Practices	2

# HEALTH INFORMATION TECHNOLOGY

A45360 (Associate) A45360RH (Associate) D45360 (Diploma)  
C45360A (Certificate) C45360B (Certificate)  
C45360IF (Certificate) C45360RH (Certificate)

This curriculum provides individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information.

Students will supervise departmental functions; classify, code, and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

\*\*The Health Information Technology program is accredited by the Commission on the Accreditation for Health Informatics and Information Management (CAHIIM) Education\*\*.

Please visit the McDowell Technical Community College Health Science website for current admission information:

[http://www.mcdowelltech.edu/health\\_science.html](http://www.mcdowelltech.edu/health_science.html)

## *Associate Degree Program (A45360 or A45360RH)*

Title	Class/Lab/Cred-
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### **I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
ENG	112	Writing/Research in the Discipline	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

## II. Major Courses

			Class	Lab	Clin.	Credit
BIO	168	Anatomy and Physiology I	3	3	0	4
BIO	169	Anatomy and Physiology II	3	3	0	4
HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
HIT	122	Professional Practice Experience I	0	0	3	1
HIT	124	Professional Practice Experience II	0	0	3	1
HIT	210	Healthcare Statistics	2	2	0	3
HIT	211	ICD Coding	2	6	0	4
HIT	214	CPT/Other Coding Systems	1	3	0	2
HIT	216	Quality Management	1	3	0	2
HIT	218	Management Principles in HIT	3	0	0	3
HIT	222	Professional Practice Experience III	0	0	6	2
HIT	226	Principles of Disease	3	0	0	3
HIT	280	Professional Issues	2	0	0	2
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3

## III. Other Major Courses Select 9 credits

CIS	110	Introduction to Computers*	2	2	0	3
CIS	113	Computer Basics	0	2	0	1
CTS	130	Spreadsheet	2	2	0	3
HIT	215	Reimbursement Methodology*	1	2	0	2
HIT	220	Health Informatics and EHR's*	1	2	0	2
HIT	221	Lifecycle of EHR*	2	2	0	3
HIT	225	Healthcare Informatics	3	2	0	4
HIT	227	Informatics Project Management	2	2	0	3
OST	247	Procedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2

\* Courses designated with an asterisk (\*) are required in the Associate Degree Program

## IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	0	1
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**Total Credits:** 71

## *Recommended Semester Schedule*

### First Year-Fall

BIO	168	Anatomy and Physiology I	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law Ethics	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3

**First Year-Spring**

BIO	169	Anatomy and Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
ENG	112	Writing/Research in the Discipline		3	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
MAT	143	Quantitative Literacy	2	2	0	3
MED	122	Medical Terminology II	3	0	0	3

**First Year-Summer**

COM	231	Public Speaking	3	0	0	3
HIT	226	Principles of Disease	3	0	0	3
PSY	150	General Psychology	3	0	0	3
Humanities/Art	Elective-see list on page 100		3	0	0	3

**Second Year-Fall**

HIT	122	Professional Practice Experience I	0	0	3	1
HIT	124	Professional Practice Experience II	1	0	3	1
HIT	210	Healthcare Statistics	2	2	0	3
HIT	211	ICD Coding	2	6	0	4
HIT	218	Management Principles in HIT	3	0	0	3
HIT	220	Health Informatics and EHR's	1	2	0	2

**Second Year-Spring**

HIT	214	CPT/Other Coding Systems	1	3	0	2
HIT	215	Reimbursement Methodology	1	2	0	2
HIT	216	Quality Management	1	3	0	2
HIT	221	Lifecycle of EHR*	2	2	0	3
HIT	222	Professional Practice Experience III	0	0	6	2
HIT	280	Professional Issues	2	0	0	2

**Total Credits: 71**

***Health Information Technology Coding Diploma (D45360)***  
***Medical Coding Concentration***

Title	Class	Lab	Clin.	Credit
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**I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	0	3
MAT	143	Quantitative Literacy	2	2	0	3

**II. Major Courses**

BIO	168	Anatomy and Physiology	3	3	0	4
BIO	169	Anatomy and Physiology II	3	3	0	4
HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
HIT	124	Professional Practice Experience II	0	0	3	1



HIT	211	ICD Coding	2	6	0	4
HIT	214	CPT/Other Coding Systems	1	3	0	2
HIT	222	Professional Practice Experience III	0	0	6	2
HIT	226	Principles of Disease	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3

### III. Other Major Courses

CIS	110	Introduction to Computers	2	2	0	3
HIT	215	Reimbursement Methodology	1	2	0	2

### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	0	1
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**Total Credits: 47**

### *Recommended Semester Schedule*

Title			Class	Lab	Clin.	Credit
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#### **First Year-Fall**

BIO	168	Anatomy and Physiology I	3	3	0	4
CIS	110	Introduction to Computers	2	2	0	3
HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law & Ethics	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3

#### **First Year-Spring**

BIO	169	Anatomy and Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
MED	122	Medical Terminology II	3	0	0	3

#### **First Year-Summer**

HIT	226	Principles of Disease	3	0	0	3
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#### **Second Year-Fall**

HIT	124	Professional Practice Experience II	0	0	3	1
HIT	211	ICD Coding	2	6	0	4

#### **Second Year-Spring**

HIT	214	CPT/Other Coding Systems	1	3	0	2
HIT	215	Reimbursement Methodology	1	2	0	2
HIT	222	Professional Practice Experience III	0	0	6	2

***Certificate Program (C45360A)***  
***Release of Information Concentration***

Title	Class	Lab	Clin.	Credit
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**I. Major Courses**

HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law & Ethics	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3

**II. Other Major Courses**

CIS	110	Introduction to Computers	2	2	0	3
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**Total Credits: 18**

***Recommended Semester Schedule***

**First Year-Fall**

CIS	110	Introduction to Computers	2	2	0	3
HIT	110	Fundamentals of Health Information Mgt.	3	0	0	3
HIT	112	Health Law Ethics	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3

**First Year-Spring**

HIT	114	Health Data Systems/Standards	2	3	0	3
MED	122	Medical Terminology II	3	0	0	3

***Healthcare Informatics Certificate (C45360-IF or C45360RH)***

Title	Class	Lab	Clin.	Credit
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**I. Major Courses**

HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3

**II. Other Major Courses**

CIS	113	Computer Basics	0	2	0	1
HIT	221	Lifecycle of EHR	2	2	0	3
HIT	225	Healthcare Informatics	3	2	0	4
HIT	227	Informatics Project Management	2	2	0	3

**Total Credits: 17**

## *Recommended Semester Schedule*

### **First Year-Fall**

HIT	112	Health Law and Ethics	3	0	0	3
HIT	114	Health Data Systems/Standards	2	3	0	3
HIT	225	Healthcare Informatics	3	2	0	4

### **First Year-Spring**

CIS	113	Computer Basics	0	2	0	1
HIT	221	Lifecycle of EHR	2	2	0	3
HIT	227	Informatics Project Management	2	2	0	3

## *HIT Certificate in Medical Billing and Coding (C45360B)*

Title	Class	Lab	Clin.	Credit
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### **I. Major Courses**

MED	121	Medical Terminology I	3	0	0	3
MED	122	Medical Terminology II	3	0	0	3

### **II. Other Major Courses**

CIS	110	Introduction to Computers	2	2	0	3
CTS	130	Spreadsheet I	2	2	0	3
HIT	215	Reimbursement Methodology.	1	2	0	2
OST	247	Procedural Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2

**Total Credits: 18**

## *Recommended Semester Schedule*

### **First Year-Fall**

CIS	110	Introduction to Computers	2	2	0	3
HIT	215	Reimbursement Methodology.	1	2	0	2
MED	121	Medical Terminology I	3	0	0	3

### **First Year-Spring**

CTS	130	Spreadsheet	2	2	0	3
MED	122	Medical Terminology II	3	0	0	3
OST	247	Procedural Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2

# HEALTH SCIENCE: THERAPEUTIC AND DIAGNOSTIC SERVICES/NURSE AIDE

## D45970 (Diploma)

This curriculum is designed to prepare students for careers in the Health Sciences.

Students will complete general education courses that provide a foundation for success in nursing and allied health curricula. Students may select a career pathway that will prepare them for an entry level position in health care. Courses may also provide foundational knowledge needed in the pursuit of advanced health science degrees or programs.

Graduates should qualify for an entry-level job associated with the program major such as Emergency Medical Technician (EMT) or Advanced Emergency Medical Technician (AEMT), Medical Assistant, Nurse Aide, Pharmacy Technician, Phlebotomist, or Massage Therapist dependent upon the selected program major.

**Nurse Aide:** The Nurse Aide curriculum prepares individuals to work under the supervision of licensed nursing professionals in performing nursing care and services for persons of all ages. Topics include growth and development, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management, family resources and services, and employment skills. Upon completion, the student may be eligible for listing as a Nurse Aide I and other selected Nurse Aide registries as determined by the local program of study.

### *Diploma Program*

Title		Class/Lab/Clinical/Credit			
<b>I. General Education Courses</b>					
ENG 111	Writing and Inquiry	3	0	0	3
PSY 150	General Psychology	3	0	0	3
<b>II. Major Courses</b>					
NAS 101	Nurse Aide I	3	4	3	6
NAS 102	Nurse Aide II	3	2	6	6
NAS 103	Home Health Care Nurse Aide	4	4	0	6
MED 121	Medical Terminology I	3	0	0	3
MED 122	Medical Terminology II	3	0	0	3
<b>III. Other Major Courses</b>					
BIO 168	Anatomy and Physiology I	3	3	0	4
BIO 169	Anatomy and Physiology II	3	3	0	4
CIS 110	Introduction to Computers	2	2	0	3

NUT 110	Nutrition	3	0	0	3
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#### IV. Other Required Courses

ACA 115	Success and Study Skills	0	2	0	1
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**Total Credits: 41**

### *Recommended Semester Schedule*

#### **First Year-Fall**

Class/Lab/Clinical/Credit

NAS 101	Nurse Aide I	3	4	3	6
ACA 115	Success and Study Skills	0	2	0	1
ENG 111	Writing and Inquiry	3	0	0	3
Med 121	Medical Terminology I	3	0	0	3
BIO 168	Anatomy and Physiology I	3	3	0	4

#### **Spring Semester**

NAS 102	Nurse Aide II	3	2	6	6
NAS 103	Home Health Care Nurse Aide	4	0	4	6
MED 122	Medical Terminology II	3	0	0	3
NUT 110	Nutrition	3	0	0	3
BIO 169	Anatomy and Physiology II	3	3	0	4

#### **Summer Semester**

CIS 110	Introduction to Computers	2	2	0	3
PSY150	General Psychology	3	0	0	3

# INDUSTRIAL SYSTEMS TECHNOLOGY

A50240 (Associate Degree) D50240 (Diploma)

This curriculum is designed to prepare or up-grade individuals to safely service, maintain, repair or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting and diagnosing industrial systems.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

## *Associate Degree Program*

<u>Title</u>	<u>Class/Lab/Credit</u>
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### **I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	171	Pre-Calculus Algebra	3	2	4

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

### **II. Major Courses**

Required Courses

ELC	112	DC/AC Electricity	3	6	5
HYD	110	Hydraulics/Pneumatics	2	3	3
ISC	110	Workplace Safety	1	0	1
MAC	111	Machining Technology I	2	12	6
MNT	110	Intro to Maintenance Processes	1	3	2
WLD	112	Basic Welding Processes	1	3	2

Select one:

BPR	111	Blueprint Reading	1	2	2
BPR	135	Schematics and Diagrams	2	0	2

**III. Other Major Courses** (Must be selected from identified prefixes)**Take 23 credits from:**

AHR	160	Refrigerant Certification	1	0	1
EGR	125	Appl. Software for Tech	1	2	2
ELC	113	Residential Wiring	2	6	4
ELC	115	Industrial Wiring	2	6	4
ELC	128	Intro. to PLC	2	3	3
ELC	213	Instrumentation	3	2	4
ELN	231	Industrial Controls	2	3	3
PLU	111	Introd. to Basic Plumbing	1	3	2
WBL	111	Work-Based Learning	0	10	1
WBL	112	Work-Based Learning	0	20	2
WBL	113	Work-Based Learning	0	30	3

**Take 4 credits from**

PCI	264	Process Controls with PLC's	3	3	4
WLD	121	GMAW (MIG) FACW/Plate	2	6	4

**Take 2 credits from**

MAC	114	Intro. to Metrology	2	0	2
WLD	110	Cutting Processes	1	3	2

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 67*****Recommended Semester Schedule*****First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
ELC	113	Residential Wiring	2	6	4
EGR	125	Appl. Software for Tech	1	2	2
HYD	110	Hydraulics/Pneumatics	2	3	3
ISC	110	Workplace Safety	1	0	1
MAT	171	Pre-Calculus Algebra	3	2	4
PLU	111	Introd. to Basic Plumbing	1	3	2

**First Year-Spring**

ELC	112	DC/AC Electricity	3	6	5
ELC	128	Intro. to PLC	2	3	3
ELN	231	Industrial Controls	2	3	3
MNT	110	Intro to Maintenance Processes	1	3	2
WLD	112	Basic Welding Processes	1	3	2

**First Year-Summer**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
Social Science Elective-see list on page 100			3	0	3
Humanities/Fine Arts Elective-see list on page 100			3	0	3

**Second Year-Fall**

ELC	213	Instrumentation	3	2	4
MAC	111	Machining Technology	2	12	6
BPR Elective					
PCI/WLD Elective					

**Second Year-Spring**

AHR	160	Refrigerant Certification	1	0	1
ELC	115	Industrial Wiring	2	6	4
MAC/WLD Elective					

***Diploma Program (D50240)***

Title	Class/Lab/Cred-
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**I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
MAT	171	Pre-Calculus Algebra	3	2	4

**II. Major Courses**

BPR	111	Print Reading	1	2	2
ELC	112	DC/AC Electricity	3	6	5
HYD	110	Hydraulics/Pneumatics	2	3	3
ISC	110	Workplace Safety	1	0	1
MAC	111	Machining Technology I	2	12	6
MNT	110	Intro to Maintenance Processes	1	3	2
WLD	112	Basic Welding Processes	1	3	2

**III. Other Major Courses**

AHR	160	Refrigerant Certification	1	0	1
EGR	125	Appl. Software for Technology	1	2	2
ELC	113	Residential Wiring	2	6	4
ELC	115	Industrial Wiring	2	6	4
ELC	128	Intro. to PLC	2	3	3
ELN	231	Industrial Controls	2	3	3

**IV. Other Required Courses**

ACA	115	Success and Study Skills	1	0	1
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**Total Credits: 46**



## ***Recommended Semester Schedule (Diploma)***

### **First Year-Fall**

ELC	113	Residential Wiring	2	6	4
EGR	125	Appl. Software for Tech	1	2	2
HYD	110	Hydraulics/Pneumatics	2	3	3
ISC	110	Workplace Safety	1	0	1
MAT	171	Pre-Calculus Algebra	3	2	4

### **First Year-Spring**

ELC	112	DC/AC Electricity	3	6	5
ELC	128	Intro. to PLC	2	3	3
ELN	231	Industrial Controls	2	3	3
MNT	110	Intro to Maintenance Processes	1	3	2
WLD	112	Basic Welding Processes	1	3	2

### **First Year-Summer**

ENG	111	Writing and Inquiry	3	0	3
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### **Second Year-Fall**

MAC	111	Machining Technology	2	12	6
BPR Elective					

### **Second Year-Spring**

AHR	160	Refrigerant Certification	1	0	1
ELC	115	Industrial Wiring	2	6	4

## ***Industrial Systems Technology, Refrigeration Stackable Certificates***

### **Level 1 Certificate**

#### **First Semester**

AHR	110	Introduction to Refrigeration
AHR	111	HVACR Electricity
AHR	180	HVACR Customer Relations

#### **Second Semester**

AHR	160	Refrigeration Certification
AHR	115	Refrigeration Systems
REF	117	Refrigeration Controls

### **Level 2 Certificate**

#### **First Semester**

REF	123	Electrical Devices
REF	116	Commercial Systems

**Second Semester**

AHR	235	Refrigeration Design
AHR	135	Transportation Refrigeration
AHR	245	Chiller Systems

# NETWORKING TECHNOLOGY

D25340 (Diploma)

This curriculum prepares individuals for employment supporting network infrastructure environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is placed on the implementation and management of network software and the implementation and management of hardware such as switches and routers.

Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network industry certifications, depending on their local program.

Title	Class/Lab/Credit		
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## I. General Education Courses

ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

## II. Major Courses

CTS	120	Hardware/Software Support	2	3	3
NET	125	Networking Basics	1	4	3
NET	126	Routing Basics	1	4	3
NET	225	Routing & Switching I	1	4	3
NET	226	Routing & Switching II	1	4	3
NOS	110	Operating Systems Concepts	2	3	3
NOS	120	Linux/UNIX Single User	2	2	3
NOS	130	Windows Single User	2	2	3
SEC	110	Security Concepts	2	2	3

## III. Other Major Courses

CIS	110	Introduction to Computers	2	2	3
CTS	115	Information Sys Business Concepts	3	0	3
NET	240	Network Design	3	0	3
NOS	230	Windows Admin I	2	2	3

## IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 46**

## *Recommended Semester Schedule*

### **First Year-Fall**

ACA	115	Success and Study Skills	2	0	2	1
CIS	110	Introduction to Computers	2	2	4	3
CTS	115	Information Systems Business Concepts	3	0	3	3
NET	125	Networking Basics	1	4	5	3
NOS	110	Operating Systems Concepts	2	3	5	3

### **First Year-Spring**

CTS	120	Hardware/Software Support	2	3	5	3
NET	126	Routing Basics	1	4	5	3
NET	240	Network Design	3	0	3	3
NOS	130	Windows Single User	2	2	4	3

### **First Year-Summer**

ENG	111	Writing and Inquiry	3	0	3	3
MAT	143	Quantitative Literacy	2	2	0	3

### **Second Year-Fall**

NET	225	Routing & Switching I	1	4	5	3
NOS	120	Linux/UNIX Single User	2	2	4	3
NOS	230	Windows Admin I	2	2	4	3
SEC	110	Security Concepts	3	0	3	3

### **Second Year-Spring**

NET	226	Routing & Switching II	1	4	5	3
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# NURSING ASSISTANT

C45840 (Certificate)

The Nurse Aide curriculum prepares individuals to work under the supervision of licensed nursing professionals in performing nursing care and services for persons of all ages.

Topics include growth and development, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management, family resources and services, and employment skills.

Upon completion, the student may be eligible for listing as a Nurse Aide I and other selected Nurse Aide registries as determined by the local program of study.

Please visit the McDowell Technical Community College Health Science website for current admission information:

[http://www.mcdowelltech.edu/health\\_science.html](http://www.mcdowelltech.edu/health_science.html)

<u>Title</u>	<u>Class/Lab/Clinical/Credit</u>
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## I. Major Courses

NAS	101	Nurse Aide I	3	4	3	6
NAS	102	Nurse Aide II	3	2	6	6
NAS	103	Home Health Care Nurse Aide	4	4	0	6

**Total Credits: 18**

### *Recommended Semester Schedule*

NAS 101 and NAS 102 are offered each fall and spring. NAS 103 is offered as needed when there is a sufficient number of students interested in taking the class.

# OFFICE ADMINISTRATION

A25370 (Associate Degree) D25370 (Diploma) C25370 (Certificate)  
D25370MT (Medical Transcription Diploma)

This curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

## *Associate Degree Program*

Title	Class/Lab/Credit
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### **I. General Education Courses**

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences

on Page 100.

### **II. Major Courses**

CIS	110	Introduction to Computers	2	2	3
OST	136	Word Processing	2	2	3
OST	164	Text Editing Applications	3	0	3
OST	184	Records Management	2	2	3
OST	289	Office Systems Management	2	2	3

### **III. Other Major Courses**

(Must be selected from identified prefixes)

**Take 40 credits from:**

ACC	120	Principles of Financial Accounting	3	2	4
ACC	140	Payroll Accounting	1	2	2
BUS	110	Introduction to Business	3	0	3
BUS	125	Personal Finance	3	0	3
CTS	130	Spreadsheet I	2	2	3
CTS	135	Integrated Software Intro	2	4	4
DBA	110	Database Concepts	2	3	3
ECO	252	Principles of Macroeconomics	3	0	3
or					
BUS	260	Business Communications	3	0	3
MED	121	Medical Terminology I	3	0	3
MED	122	Medical Terminology II	3	0	3
OST	122	Office Computations	1	2	2
OST	131	Keyboarding	1	2	2
OST	134	Text Entry	2	2	3
OST	135	Advanced Text Entry & Format	3	2	4
OST	223	Administrative Office Transcription	2	2	3
OST	236	Adv Word/Information Processing	2	2	3
OST	241	Medical Office Transcription I	1	2	2
OST	242	Medical Office Transcription II	1	2	2
OST	244	Med. Document Production	1	2	2
OST	286	Professional Development	3	0	3
WBL	111	Work-Based Learning I	0	10	1

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 71*****Recommended Semester Schedule*****First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
OST	122	Office Computations	1	2	2
OST	131	Keyboarding	1	2	2
OST	164	Text Editing Applications	3	0	3

**First Year-Spring**

CTS	130	Spreadsheet I	3	2	3
OST	134	Text Entry	2	2	3

OST	136	Word Processing	2	2	3
OST	184	Records Management	2	2	3

### **First Year-Summer**

DBA	110	Database Concepts	2	3	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
Humanities Elective-See list on page 100			3	0	3

### **Second Year-Fall**

ACC	120	Principles of Financial Accounting	3	2	4
BUS	125	Personal Finance	3	0	3
BUS	260	Business Communications or ECO 252	3	0	3
OST	236	Advanced Word Processing	2	2	3

### **Second Year-Spring**

ACC	140	Payroll Accounting	1	2	2
CTS	135	Integrated Software Intro	2	4	4
OST	223	Administrative Office Transcription	1	2	2
OST	286	Professional Development	3	0	3
Social Sciences Elective-See list under required courses			3	0	3

### **Second Year-Summer**

COM	231	Public Speaking	3	0	3
OST	289	Office Systems Management	2	2	3

## ***Diploma Program (D25370)***

<u>Title</u>	<u>Class/Lab/Credit</u>				
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### **I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

### **II. Major Courses**

#### **1. Required Courses**

OST	164	Text Editing Applications	3	0	3
OST	289	Office Systems Management	2	2	3

#### **2. Required Subject Areas**

CIS	110	Introduction to Computers	2	2	3
OST	136	Word Processing	2	2	3
OST	184	Records Management	2	2	3



### III. Other Major Courses

(A total of 20 Semester Hours must be selected from identified prefixes)

ACC	120	Principles of Financial Accounting	3	2	4
ACC	140	Payroll Accounting	1	2	2
BUS	110	Introduction to Business	3	0	3
BUS	125	Personal Finance	3	0	3
BUS	260	Business Communications	3	0	3
CTS	130	Spreadsheet I	2	2	3
CTS	135	Integrated Software Intro	2	4	4
DBA	110	Database Concepts	2	3	3
ECO	252	Principles of Macroeconomics	3	0	3
OST	122	Office Computations	1	2	2
OST	131	Keyboarding	1	2	2
OST	134	Text Entry	2	2	3
OST	135	Advanced Text Entry	3	2	4
OST	223	Administrative Office Transcription	2	2	3
OST	236	Advanced Word Processing	2	2	3
OST	286	Professional Development	3	0	3
WBL	111	Work-Based Learning	0	10	1

### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 42**

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
OST	122	Office Computations	1	2	2
OST	131	Keyboarding	1	2	2
OST	164	Text Editing	3	0	3

#### **First Year-Spring**

CTS	130	Spreadsheet I	3	2	3
OST	134	Text Entry	3	2	4
OST	136	Word Processing	2	2	3
OST	184	Records Management	2	2	3
OST	286	Professional Development	3	0	3

Select 5 shc from the following list:

ACC	120	Principles of Financial Accounting	3	2	4
ACC	140	Payroll Accounting	1	2	2
BUS	125	Personal Finance	3	0	3

CTS	135	Integrated Software Intro	2	4	4
DBA	110	Database Concepts	2	3	3
ECO	252	Principles of Macroeconomics	3	0	3
or					
BUS	260	Business Communications	3	0	3
OST	122	Office Computations	1	2	2
OST	135	Advanced Text Entry	3	2	4
OST	223	Administrative Office Transcription	2	2	3
OST	286	Professional Development	3	0	3
WBL	111	Work-Based Learning	0	10	1

#### **First Year-Summer**

ENG	111	Expository Writing	3	0	3
MAT	143	Quantitative Literacy	2	2	3
OST	135	Advanced Text Entry	3	2	4
OST	289	Office Systems Management	2	2	3

## ***Office Systems Certificate (C25370)***

### ***Recommended Semester Schedule***

Title	Class/Lab/Credit				
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#### **I. Major Courses**

CIS	110	Introduction to Computers	2	2	3
OST	136	Word Processing	2	2	3
OST	164	Text Editing Applications	3	0	3
OST	184	Records Management	2	2	3

#### **II. Other Major Courses**

OST	289	Office Systems Management	2	2	3
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**Total Credits: 15**

#### **First Year-Fall**

CIS	110	Introduction to Computers	2	2	3
OST	164	Text Editing Applications	3	0	3

#### **First Year-Spring**

OST	136	Word Processing	2	2	3
OST	184	Records Management	1	2	3
OST	289	Office Systems Management	2	2	3

## *Medical Transcription Diploma Program (D25370MT)*

Title			Class/Lab/Credit		
<b>I. General Education Courses</b>					
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
<b>II. Major Courses</b>					
OST	136	Word Processing	2	2	3
OST	164	Text Editing Applications	3	0	3
OST	184	Records Management	2	2	3
<b>III. Other Major Courses</b>					
DBA	110	Database Concepts	2	3	3
MED	121	Medical Terminology I	3	0	3
MED	122	Medical Terminology II	3	0	3
OST	131	Keyboarding	1	2	2
OST	134	Text Entry and Formatting	2	2	3
OST	241	Medical Office Transcription I	1	2	2
OST	242	Medical Office Transcription II	1	2	2
OST	244	Medical Document Production	1	2	2
OST	286	Professional Development	3	0	3
<b>IV. Other Required Courses</b>					
ACA	115	Success and Study Skills	0	2	1
<b>Total Credits: 39</b>					

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	1	0	1
MED	121	Medical Terminology I	3	0	3
OST	131	Keyboarding	1	2	2
OST	136	Word Processing	2	2	3
OST	164	Text Editing Applications	3	0	3

#### **First Year-Spring**

DBA	110	Database Concepts	2	3	3
MAT	143	Quantitative Literacy	2	2	3
MED	122	Medical Terminology II	3	0	3
OST	184	Records Management	1	2	2
OST	241	Medical Office Transcription I	1	2	2

**First Year-Summer**

ENG	111	Writing and Inquiry	3	0	3
OST	134	Text Entry and Formatting	2	2	3
OST	242	Medical Office Transcription II	1	2	2
OST	244	Medical Document Production	1	2	2
OST	286	Professional Development	3	0	3

# PHOTOGRAPHIC TECHNOLOGY

A30280 (Associate Degree) C30280 (Certificate)

This curriculum offers training in photographic techniques and their application in professional photographic disciplines. Where offered, students will receive comprehensive course work in four areas of concentration: Photojournalism, Commercial Photography and Portrait Studio Management.

Special emphasis is placed on developing skills in the following areas: fundamentals of camera systems, lighting, photographic process, digital imaging, design and business practices.

Graduates should qualify for entry level jobs in the diverse photographic industry. Employment opportunities exist in the following areas: commercial photography, photojournalism, biomedical photography, portrait, photographic equipment sales, photographic laboratories, and imaging technologies; dependant upon courses offered and completed.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

***\*This curriculum was designed to be entered in the fall of each year. Some classes may not be offered every semester.***

Title	Class/Lab/Credit
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## I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

Select one course each from Humanities/Fine Arts and Social/Behavioral Sciences on Page 100.

## II. Major Courses

PHO	110	Fundamentals of Photography	3	6	5
PHO	115	Basic Studio Lighting	2	6	4
PHO	139	Intro. to Digital Imaging	1	3	2
PHO	224	Multimedia Production	2	3	3

## III. Other Major Courses (Must be selected from identified prefixes)

### Take 41 hours from:

CIS	110	Introduction to Computers	2	2	3
GRD	151	Computer Design Basics	1	4	3
PHO	113	History of Photography	3	0	3
PHO	120	Intermediate Photography	2	4	4
PHO	132	Small Format Photography	2	6	4

PHO	140	Digital Photo Imaging I	2	4	4
PHO	150	Portfolio Development I	3	3	4
PHO	180	Creative Problem Solving	1	4	3
PHO	216	Documentary Photography	2	4	4
PHO	217	Photojournalism I	1	6	4
PHO	226	Portraiture	3	3	4
PHO	235	Commercial Photography	2	4	4
WBL	111	Work-Based Learning	0	10	1

The following courses may be substituted for COE 111 with approval of advisor:

BUS	110	Introduction To Business	3	0	3
BUS	125	Personal Finance	3	0	3
BUS	230	Small Business Management	3	0	3

#### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 71**

### *Recommended Semester Schedule*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
COM	231	Public Speaking	3	0	3
PHO	110	Fundamentals of Photography	3	6	5
PHO	113	History of Photography	3	0	3
PHO	139	Introduction to Digital Imaging	1	3	2

#### **First Year-Spring**

PHO	115	Basic Studio Lighting	2	6	4
PHO	120	Intermediate Photography	2	4	4
PHO	132	Small Format Photography	2	6	4

#### **First Year-Summer**

BUS	110	Introduction To Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
ENG	111	Writing and Inquiry	3	0	3
Humanities Elective-See list on page 100			3	0	3

#### **Second Year-Fall**

PHO	140	Digital Photo Imaging I	2	4	4
PHO	216	Documentary Photography	2	4	4
PHO	224	Multimedia Production	2	3	3
PHO	226	Portraiture	3	3	4

**Second Year-Spring**

PHO	150	Portfolio Development I	3	3	4
PHO	217	Photojournalism	1	6	4
PHO	235	Commercial Photography	2	4	4

**Second Year-Summer**

MAT	143	Quantitative Literacy	2	2	3
**Recommended for transfer to four-year colleges					
Social Science Elective-See list on page 100			3	0	3

**CERTIFICATE PROGRAM (C3280)****I. Major Courses**

PHO	110	Fundamentals of Photography	3	6	5
PHO	115	Basic Studio Lighting	2	6	4

**II. Other Major Courses**

PHO	120	Intermediate Photography	2	4	4
PHO	140	Digital Photo Imaging	2	4	4

**Total Credits: 17*****Recommended Semester Schedule*****First Year-Fall**

PHO	140	Digital Photo Imaging	2	4	4
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**First Year-Spring**

PHO	110	Fundamentals of Photography	3	6	5
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**Second Year-Fall**

PHO	115	Basic Studio Lighting	2	6	4
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**Second Year-Spring**

PHO	120	Intermediate Photography	2	4	4
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# PRACTICAL NURSING EDUCATION

D45660 (Diploma)

The Practical Nursing curriculum provides knowledge and skills to integrate safety and quality into nursing care to meet the needs of the holistic individual which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes safe, individualized nursing care and participation in the interdisciplinary team while employing evidence-based practice, quality improvement, and informatics.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

Please visit the McDowell Technical Community College Health Science website for current admission information:

[http://www.mcdowelltech.edu/health\\_science.html](http://www.mcdowelltech.edu/health_science.html)

<u>Title</u>	<u>Class/</u>	<u>Lab/</u>	
<u>Credit</u>			
<b>I. General Education Courses</b>			
ENG 111 Writing and Inquiry	3	0	3
PSY 150 General Psychology	3	0	3

## II. Major Courses

	<u>Class</u>	<u>Lab</u>	<u>Clinical</u>	<u>Credit</u>
NUR 101 Practical Nursing I	7	6	6	11
NUR 102 Practical Nursing II	7	0	9	10
NUR 103 Practical Nursing III	6	0	9	9

## III. Other Major Courses

	<u>Class</u>	<u>Lab</u>	<u>Clinical</u>	<u>Credit</u>
BIO 168 Anatomy & Physiology I	3	3	0	4
BIO 169 Anatomy & Physiology II	3	3	0	4

## IV. Other Required Courses

ACA 115 Success and Study Skills	0	2	0	1
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**Total Credits: 45**



## *Curriculum by Semester*

### **Fall Semester**

			<u>Class</u>	<u>Lab</u>	<u>Clinical</u>	<u>Credit</u>
ACA	115	Success and Study Skills	0	2	0	1
BIO	168	Anatomy & Physiology I	3	3	0	4
NUR	101	Practical Nursing I	7	6	6	11
PSY	150	General Psychology	3	0	0	3

### **Spring Semester**

BIO	169	Anatomy & Physiology II	3	3	0	4
ENG	111	Writing and Inquiry	3	0	0	3
NUR	102	Practical Nursing II	7	0	9	10

### **Summer Semester**

NUR	103	Practical Nursing III	6	0	9	9
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# SURGICAL TECHNOLOGY

D45740 (Diploma)

The Surgical Technology curriculum prepares individuals to assist in the care of the surgical patient in the operating room and to function as a member of the surgical team.

Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment, and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations.

Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central supply processing units.

Students of Commission on Accreditation of Allied Health Education Programs (AAHEP) are required to take the national certification exam administered by the National Board on Certification in Surgical Technology and Surgical Assisting (NBSTSA) within a four-week period prior to or after graduation.

Please visit the McDowell Technical Community College Health Science website for current admission information:

**[http://www.mcdowelltech.edu/health\\_science.html](http://www.mcdowelltech.edu/health_science.html)**

<u>Title</u>			<u>Class</u>	<u>Lab</u>	<u>Clinical</u>	
<u>Credit</u>						
<b>I. General Education Courses</b>						
BIO	175	General Microbiology	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
<b>II. Major Courses</b>						
SUR	110	Introduction to Surgical Technology	3	0	0	3
SUR	111	Perioperative Patient Care	5	6	0	7
SUR	122	Surgical Procedures I	5	3	0	6
SUR	123	Surgical Clinical Practice I	0	0	21	7
SUR	134	Surgical Procedures II	5	0	0	5
SUR	135	Surgical Clinical Practice II	0	0	12	4
SUR	137	Professional Success Preparation	1	0	0	1
<b>III. Other Major Courses</b>						
BIO	163	Anatomy and Physiology I	4	2	0	5
CIS	110	Introduction to Computers	2	2	0	3

**IV. Other Required Courses**

ACA	115	Success and Study Skills	0	2	0	1
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**Total Credits: 48*****Recommended Semester Schedule*****Fall Semester**

ACA	115	Success and Study Skills	0	2	0	1
BIO	163	Anatomy and Physiology I	4	2	0	5
ENG	111	Writing and Inquiry	3	0	0	3
SUR	110	Introduction to Surgical Technology	3	0	0	3
SUR	111	Perioperative Patient Care	5	6	0	7

**Spring Semester**

BIO	175	General Microbiology	2	2	0	3
CIS	110	Introduction to Computers	2	2	0	3
SUR	122	Surgical Procedures I	5	3	0	6
SUR	123	Surgical Clinical Practice I	0	0	21	7

**Summer Semester**

SUR	134	Surgical Procedures II	5	0	0	5
SUR	135	Surgical Clinical Practice II	0	0	12	4
SUR	137	Professional Success Preparation	1	0	0	1

**Total Credits: 48**

# WEB TECHNOLOGIES

(A25290) Associates Degree (D25290) Diploma (C25290) Certificate

This curriculum prepares graduates for careers in the information technology arena using computers and distributed computing to disseminate and collect information via the web.

Course work in this program covers the terminology and use of computers, network devices, networks, servers, databases, applications, programming languages, as well as web applications, site development and design. Studies will provide opportunity for students to learn related industry standards.

Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of web applications, websites, web services, and related areas of distributed computing.

Title	Class/Lab/Cred-
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## I. General Education Courses

COM	231	Public Speaking	3	0	3
ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3
Humanities/Fine Arts-see list on page 100			3	0	3
Social/Behavioral Sciences-see list on page 100			3	0	3

## II. Major Courses

BUS	110	Introduction to Business	3	0	3
CIS	115	Intro to Programming & Logic	2	3	3
DBA	110	Database Concepts	2	3	3
NET	110	Networking Concepts	2	2	3
WEB	110	Internet/Web Fundamentals	2	2	3
WEB	111	Introduction to Web Graphics	2	2	3
WEB	115	Web Markup and Scripting	2	2	3
WEB	120	Intro. to Internet Multimedia	2	2	3
WEB	140	Web Development Tools	2	2	3
WEB	210	Web Design	2	2	3
WEB	250	Database Driven Websites	2	2	3

Take 3 credits from: (Programming electives)

WEB	179	JAVA Web Programming	2	3	3
WEB	182	PHP Programming	2	2	3
WEB	225	Content Management Systems	2	2	3

### III. Other Major Courses

Take 14 credits from: \*\*

CIS	110	Introduction to Computers	2	2	3
GRD	151	Computer Design Basics **	1	4	3
GRD	152	Computer Design Techniques I **	1	4	3
MKT	120	Principles of Marketing	3	0	3
NOS	110	Operating Systems Concepts	2	3	3
PHO	110	Fundamentals of Photography **	3	6	5
PHO	224	Multimedia Production **	2	3	3
WEB	287	Web E-Portfolio	1	2	2

\*\*Students should take either GRD 151 and 152, or PHO 110 and 224 as part of the 14 required credits.

### IV. Other Requirements:

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 66**

### *Recommended Semester Schedule*

#### *Associates Degree*

#### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
NET	110	Networking Concepts	2	2	3
NOS	110	OS Concepts	2	3	3
WEB	110	Internet/Web Fundamentals	2	2	3

#### **First Year-Spring**

CIS	115	Introduction to Prog. & Logic	2	3	3
ENG	111	Writing and Inquiry	3	0	3
MKT	120	Principles of Marketing	3	0	3
WEB	111	Introduction to Web Graphics	2	2	3
WEB	115	Web Markup & Scripting	2	2	3

#### **First Year-Summer**

COM	231	Public Speaking	3	0	3
DBA	110	Database Concepts	2	3	3
Humanities Elective-see list on page 100			3	0	3
Social Science Elective-see list on page 100			3	0	3

**Second Year-Fall**

GRD	151	Computer Design Basics **	1	4	3
<b>or</b>					
PHO	110	Fundamentals of Photography **	3	6	5
MAT	143	Quantitative Literacy	2	2	3
WEB	210	Web Design	2	2	3
Programming Elective					3

**Second Year-Spring**

GRD	152	Computer Design Techniques I **	1	4	3
<b>or</b>					
PHO	224	Multimedia Production **	2	3	3
WEB	120	Introduction to Internet Multimedia	2	2	3
WEB	140	Web Development Tools	2	2	3
WEB	250	Database Drive Websites	2	2	3

**Second Year-Summer**

WEB	287	Web E-Portfolio	1	2	2
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***Diploma Program (D25290)***

Title			Class/Lab/Credit		
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**I. General Education Courses**

ENG	111	Writing and Inquiry	3	0	3
MAT	143	Quantitative Literacy	2	2	3

**II. Major Courses**

BUS	110	Introduction to Business	3	0	3
CIS	115	Intro to Programming & Logic	2	3	3
NET	110	Networking Concepts	2	2	3
WEB	110	Internet/Web Fundamentals	2	2	3
WEB	115	Web Markup and Scripting	2	2	3
WEB	120	Intro. to Internet Multimedia	2	2	3
WEB	140	Web Development Tools	2	2	3
WEB	210	Web Design	2	2	3

**III. Other Major Courses**

CIS	110	Introduction to Computers	2	2	3
MKT	120	Principles of Marketing	3	0	3

**IV. Other Requirements:**

ACA	115	Success and Study Skills	0	2	1
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**Total Credits: 37**

## *Recommended Semester Schedule*

### **First Year-Fall**

BUS	110	Introduction to Business	3	0	3
CIS	110	Introduction to Computers	2	2	3
NET	110	Networking Concepts	2	2	3
WEB	110	Internet/Web Fundamentals	2	2	3

### **First Year-Spring**

CIS	115	Introduction to Prog. & Logic	2	3	3
ENG	111	Writing and Inquiry	3	0	3
WEB	115	Web Markup & Scripting	2	2	3

### **Second Year-Fall**

MAT	143	Quantitative Literacy	2	2	3
WEB	210	Web Design	2	2	3

### **Second Year-Spring**

MKT	120	Principles of Marketing	3	0	3
WEB	120	Introduction to Internet Multimedia	2	2	3
WEB	140	Web Development Tools	2	2	3

## *Certificate Program (C25290)*

Title	Class/Lab/Credit				
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### **I. Major Courses**

BUS	110	Introduction to Business	3	0	3
CIS	115	Intro to Programming & Logic	2	3	3
DBA	110	Database Concepts	2	3	3
WEB	110	Internet/Web Fundamentals	2	2	3
WEB	115	Web Markup and Scripting	2	2	3

### **II. Other Major Courses**

CIS	110	Introduction to Computers	2	2	3
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**Total Credits: 18**

# WELDING TECHNOLOGY

## D50420 (Diploma) C50420 (Certificate)

This curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

**In addition to the courses listed below, students may be required to take developmental classes based on their placement test scores. These classes do not count toward hours required for graduation.**

### *Diploma Program*

Title	Class/Lab/Credit
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#### **I. General Education Courses**

ENG	101	Applied Communications I	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3

#### **II. Major Courses**

WLD	110	Cutting Processes	1	3	2
WLD	115	SMAW (Stick) Plate	2	9	5
WLD	121	GMAW (MIG) FCAW/Plate	2	6	4
WLD	131	GTAW (TIG) Plate	2	6	4
WLD	141	Symbols & Specifications	2	2	3

#### **III. Other Major Courses** (Must be selected from identified prefixes)

CIS	113	Computer Basics	0	2	1
WLD	261	Certification Practices	1	3	2
WLD	151	Fabrication I	2	6	4
WLD	143	Welding Metallurgy	1	2	2
WLD	116	SMAW (Stick) Plate/Pipe	1	9	4
WLD	112	Basic Welding	1	3	2



#### IV. Other Required Courses

ACA	115	Success and Study Skills	0	2	1
<b>Total Credits: 40</b>					

#### *Recommended Semester Schedule*

\*The knowledge and skills learned in welding classes often builds upon information from previous classes. It is preferable, therefore, for students to take welding classes in the recommended course sequence. WLD 115 should be the first welding course, for example; WLD 110 should be the second. Following the recommended course sequence will allow students to complete their degree in the easiest and most logical sequence.

##### **First Year-Fall**

ACA	115	Success and Study Skills	0	2	1
WLD	112	Basic Welding	1	3	2
WLD	141	Symbols & Specifications	2	2	3

##### **First Year-Spring**

ENG	101	Applied Communications	3	0	3
MAT	110	Mathematical Measurement and Literacy	2	2	3
WLD	115	SMAW	2	9	5

##### **First Year-Summer**

WLD	110	Cutting	1	3	2
WLD	131	GTAW (TIG) Plate	2	6	4

##### **Second Year-Fall**

WLD	116	SMAW (Stick) Plate/Pipe	1	9	4
WLD	121	GMAW (MIG) FCAW/Plate	2	6	4

##### **Second Year-Spring**

WLD	143	Welding Metallurgy	1	2	2
WLD	151	Fabrication I	2	6	4

##### **Second Year-Summer**

CIS	113	Computer Basics	0	2	1
WLD	261	Certification Practices	1	3	2

## ***Certificate Program (C50420)***

<u>Title</u>	<u>Class/Lab/Credit</u>
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### **I. Major Courses**

WLD	110	Cutting Processes*	1	3	2
WLD	115	SMAW (Stick) Plate	2	9	5
WLD	121	GMAW (MIG) FCAW/Plate	2	6	4
WLD	131	GTAW (TIG) Plate	2	6	4
WLD	141	Symbols & Specifications	2	2	3

**Total Credits: 18**

\*WLD 112 may be substituted for WLD 110 with advisor approval

### ***Recommended Semester Schedule***

#### **First Year-Fall**

*WLD	112	Basic Welding	1	3	2
WLD	141	Symbols & Specifications	2	2	3

#### **First Year-Spring**

WLD	115	SMAW	2	9	5
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#### **First Year-Summer**

WLD	110	Cutting *	1	3	2
WLD	131	GTAW (TIG) Plate	2	6	4

\*WLD 112 may be substituted for WLD 110 with advisor approval

#### **Second Year-Fall**

WLD	121	GMAW (MIG) FCAW/Plate	2	6	4
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# COURSE DESCRIPTIONS

Classes labeled “\*VLC” are available through the Virtual Learning Community (VLC).

## Academic Related

### ACA 115 Success & Study Skills

0 2 1

Prerequisites: None

Corequisites: None

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals. (\*VLC)

### ACA 122 College Transfer Success

0 2 1

Prerequisites: None

Corequisites: None

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

## Accounting

### ACC 110 Ten-Key Skills

0 2 1

Prerequisites: None

Corequisites: None

This course is designed to enable mastery of the “touch system” on a ten-key device. Emphasis is placed on the “touch system” on the ten-key device. Upon completion, students should be able to use the “touch system” on the ten-key device in making computations necessary in accounting.

### ACC 115 College Accounting

3 2 4

Prerequisites: None

Corequisites: None

This course introduces basic accounting principles for business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization.

### ACC 120 Prin of Financial Accounting

3 2 4

Prerequisites: None

Corequisites: None

This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course is also available through the Virtual Learning Community (VLC).*

### ACC 121 Prin of Managerial Accounting

3 2 4

Prerequisites: ACC 120

Corequisites: None

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course is also available through the Virtual Learning Community (VLC).*

### ACC 122 Prin of Financial Accounting II

3 0 3

Prerequisites: ACC 120

Corequisites: None

This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.

**ACC 129 Individual Income Taxes**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms. (VLC)

**ACC 130 Business Income Taxes**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.

**ACC 140 Payroll Accounting**

1 2 2

Prerequisites: ACC 115 or ACC 120

Corequisites: None

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology. *This course is also available through the Virtual Learning Community (VLC).*

**ACC 150 Accounting Software Applications**

1 2 2

Prerequisites: ACC 115 or ACC 120

Corequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems. *This course is also available through the Virtual Learning Community (VLC).*

**ACC 152 Adv Software Appl**

1 2 2

Prerequisites: ACC 150

Corequisites: None

This course provides continued exposure to commercial accounting software and the opportunity to refine skills developed in ACC 150. Emphasis is placed on advanced applications of software packages. Upon completion, students should be able to use commercial software to complete complex accounting tasks.

**ACC 180 Practices in Bookkeeping**

3 0 3

Prerequisites: ACC 120

Corequisites: None

This course provides advanced instruction in bookkeeping and record-keeping functions. Emphasis is placed on mastering adjusting entries, correction of errors, depreciation, payroll, and inventory. Upon completion, students should be able to conduct all key bookkeeping functions for small business.

**ACC 220 Intermediate Accounting I**

3 2 4

Prerequisites: ACC 120

Corequisites: None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and an extensive analyses of financial statements. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

**ACC 221 Intermediate Accounting II**

3 2 4

Prerequisites: ACC 220

Corequisites: None

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 225 Cost Accounting**

3 0 3

Prerequisites: ACC 121

Corequisites: None

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. (\*VLC)

**ACC 227 Practices in Accounting**

3 0 3

Prerequisites: ACC 220

Corequisites: None

This course provides an advanced in-depth study of selected topics in accounting using case studies and individual and group problem solving. Topics include cash flow, financial statement analysis, individual and group problem solving, practical approaches to dealing with clients, ethics and critical thinking. Upon completion, students should be able to demonstrate competent analytical skills and effective communication of their analysis in written and/or oral presentations.

**ACC 240 Gov & Not-for-Profit Acct**

3 0 3

Prerequisites: ACC 121

Corequisites: None

This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

**ACC 250 Adv Accounting**

3 0 3

Prerequisites: ACC 220

Corequisites: None

This course is designed to analyze special accounting issues, which may include business combinations, partnerships, international accounting, estates, and trusts. Emphasis is placed on analyzing transactions and preparing working papers and financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.

**ACC 269 Audit & Assurance Services**

3 0 3

Prerequisites: ACC 220

Corequisites: None

This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics will include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.

***Air Conditioning,  
Heating, and Refrigeration*****AHR 110 Intro to Refrigeration**

2 6 5

Prerequisites: None

Corequisites: None

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

**Competencies****Student Learning Outcomes**

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Identify and explain the theory, operating principle, and components of the refrigeration cycle.
3. Identify tools, materials, and equipment used in the refrigeration industry.
4. Evacuate, charge, recover, and safely operate a basic refrigeration /cooling system in accordance with EPA regulations.
5. Demonstrate refrigeration piping and soldering techniques.

**AHR 111 HVACR Electricity**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

**Competencies****Student Learning Outcomes**

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Be able to use electrical test instruments.
3. Demonstrate knowledge of electricity as applied to heating, ventilation, air conditioning and refrigeration machines.
4. Identify the various electrical components used in HVAC equipment and explain their operation.
5. Use Ohm's Law to calculate the current, voltage, and resistance in a circuit.
6. Draw and interpret wiring schematics for installation and troubleshooting.
7. Follow systematic troubleshooting procedure to diagnose electrical problems and control circuit problems.

**AHR 112 Heating Technology**

2 4 4

Prerequisites: None

Corequisites: None

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

Competencies

Student Learning Outcomes

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Use industry terminology to describe principles for oil, gas, and electric warm air heating systems.
3. Identify the major components of oil, gas, and electric heating systems.
4. Install and start-up warm air heating systems.
5. Identify various types of energy sources used in heating and describe the individual characteristics of each.
6. Describe service procedures for heating systems.
7. Use tools and instruments necessary to troubleshoot and test system efficiency.

**AHR 113 Comfort Cooling**

2 4 4

Prerequisites: None

Corequisites: None

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

Competencies

Student Learning Outcomes

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Evaluate system operation using psychometrics, manufacturer specifications, and test instruments.
3. Demonstrate methods of installing, testing, maintaining, and repairing comfort cooling systems.
4. Demonstrate use of test equipment and interpretation of test equipment results.
5. Identify refrigerants used in residential and light commercial comfort cooling systems and demonstrate the proper procedures for handling these refrigerants.

**AHR 114 Heat Pump Technology**

2 4 4

Prerequisites: AHR 110 or AHR 113

Corequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

Student Learning Outcomes

1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
2. Diagram refrigerant flow through a heat pump in both the heating and cooling mode identifying refrigerant conditions and pressures.
3. Explain the defrost cycle for air-to-air heat pumps.
4. Identify and troubleshoot electrical control system components for heat pumps.
5. Identify and troubleshoot refrigeration system components for heat pumps.
6. Identify and describe the different types of heat pumps in relation to their source of heat.

**AHR 115 Refrigeration Systems**

1 3 2

Prerequisites: AHR 110

Corequisites: None

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

**AHR 120 HVACR Maintenance**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

**AHR 125 HVAC Electronics**

1 3 2

Prerequisites:

Take one: AHR 111, ELC 111, or ELC 112

Corequisites: None

This course introduces the common electronic control components in HVAC systems. Emphasis is placed on identifying electronic components and their functions in HVAC systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

**AHR 130 HVAC Controls**

2 2 3

Prerequisites:

Take one: AHR 111, ELC 111, or ELC 112

Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

**AHR 135 Transport Refrigeration**

2 6 4

Prerequisites: AHR 110

Corequisites: None

**This course introduces the equipment and components commonly found in commercial transport refrigeration systems. Topics include compressors, evaporators, metering devices, accessories, and related electrical components. Upon completion, students should be able to safely maintain, troubleshoot, and repair transport refrigeration components.**

**AHR 160 Refrigerant Certification**

1 0 1

Prerequisites: None

Corequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

**AHR 180 HVACR Customer Relations**

1 0 1

Prerequisites: None

Corequisites: None

**This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.**

**AHR 210 Residential Building Code**

1 2 2

Prerequisites: None

Corequisites: None

This course covers the residential building codes that are applicable to the design and installation of HVAC

systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

**AHR 211 Residential System Design**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

**AHR 235 Refrigeration Design**

2 2 3

Prerequisites: AHR 110

Corequisites: None

This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

**AHR 245 Chiller Systems**

1 3 2

Prerequisites: AHR 110

Corequisites: None

This course introduces the fundamentals of liquid chilling equipment. Topics include characteristics of water, principles of water chilling, the chiller, the refrigerant, water and piping circuits, freeze prevention, purging, and equipment flexibility. Upon completion, students should be able to describe the components, controls, and overall operation of liquid chilling equipment and perform basic maintenance tasks.

**Art****ART 111 Art Appreciation**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

**ART 114 Art History Survey I**

3 0 3

Prerequisites: None

Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.*

**ART 115 Art History Survey II**

3 0 3

Prerequisites: None

Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.*

## ***Automotive Body Repair***

**AUB 111 Painting & Refinishing I**

2 6 4

Prerequisites: None

Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

**AUB 112 Painting & Refinishing II**

2 6 4

Prerequisites: AUB 111

Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

**AUB 114 Special Finishes**

1 2 2

Prerequisites: AUB 111

Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

**AUB 121 Non-Structural Damage I**

1 4 3

Prerequisites: None

Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/ replacing of body panels to accepted standards.

**AUB 122 Non-Structural Damage II**

2 6 4

Prerequisites: None

Corequisites: None

This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

**AUB 131 Structural Damage I**

2 4 4

Prerequisites: None

Corequisites: None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

**AUB 132 Structural Damage II**

2 6 4

Prerequisites: AUB 131

Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.



**AUB 136           Plastics & Adhesives**

1    4    3

Prerequisites: None

Corequisites:   None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

**AUB 141 Mech & Elec Components I**

2    2    3

Prerequisite: None

Corequisites: None

This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

**AUB 160           Body Shop Operations**

1    0    1

Prerequisite: None

Corequisites: None

This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials cost and control, policies and procedures, shop safety and liabilities, and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an autobody repair facility.

**AUB 162           Autobody Estimating**

1    2    2

Prerequisites: None

Corequisites:   None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

***Automotive*****AUT 113           Automotive Servicing I**

0    6    2

Prerequisites:   None

Corequisites:   None

This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.

**AUT 114           Safety and Emissions**

1    2    2

Prerequisites:   None

Corequisites:   None

This course covers the laws, procedures, and specifications needed to perform a North Carolina State Safety and Emissions inspection. Topics include brake, steering and suspension, lighting, horn, windshield wiper, tire, mirrors, and emission control devices inspection. Upon completion, students should be able to perform complete and thorough North Carolina State Safety and Emissions inspections.

**AUT 114A          Safety and Emissions Lab**

0    2    1

Prerequisites:   None

Corequisites:   AUT 114

This course is an optional lab that allows students to enhance their understanding of North Carolina State Emissions Inspection failures. Topics include evaporative, positive crankcase ventilation, exhaust gas recirculation and exhaust emissions systems operation, including catalytic converter failure diagnosis. Upon completion, students should be able to employ diagnostic strategies to repair vehicle emissions failures resulting from North Carolina State Emissions inspection.

**AUT 116           Engine Repair**

2    3    3

Prerequisites:   None

Corequisites:   None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

**AUT 116A          Engine Repair Lab**

0    3    1

Prerequisites:   None

Corequisites:   AUT 116

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis,

inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

**AUT 141                      Suspension & Steering Systems**  
2      3      3

Prerequisites: None

Corequisites: None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

**AUT 141A                    Suspension & Steering Lab**  
0      3      1

Prerequisites: None

Corequisites: AUT 141

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

**AUT 151                      Brake Systems**  
2      3      3

Prerequisites: None

Corequisites: None

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

**AUT 151A                    Brakes Systems Lab**  
0      3      1

Prerequisites: None

Corequisites: AUT 151

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

**AUT 161                      Basic Auto Electricity**  
4      3      5

Prerequisites: None

Corequisites: None

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

**AUT 181                      Engine Performance I**  
2      3      3

Prerequisites: None

Corequisites: None

This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

**AUT 181A                    Engine Performance 1 Lab**  
0      3      1

Prerequisites: None

Corequisites: AUT 181

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices and emerging engine performance technologies. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

**AUT 183                      Engine Performance 2**  
2      6      4

Prerequisites: AUT 181

Corequisites: None

This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns, and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.

**AUT 212      Auto Shop Management**

3   0   3

Prerequisites:

None

Corequisites:

None

This course covers the principals of management essential to decision-making, communication, authority, and leadership. Topics include shop supervision, shop organization, customer relations, cost effectiveness and work place ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.

**AUT 221      Auto Transmissions/Transaxles**

2   3   3

Prerequisites:

None

Corequisites:

None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair automatic drive trains.

**AUT 221A      Auto Transm./Transaxles Lab**

0   3   1

Prerequisites:

None

Corequisites:

AUT 221

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to diagnose and repair automatic drive trains.

**AUT 231      Manual Trans/Ax/Drtrains**

2   3   3

Prerequisites:

None

Corequisites:

None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, drive-shafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

**AUT 231A      Manual Trans/Ax/Drtrains Lab**

0   3   1

Prerequisites:

None

Corequisites:

AUT 231

This course is an optional lab for the program that needs to meet NATEF hour standards but does not

have a co-op component in the program. Topics include manual drive train diagnosis, service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to diagnose and repair manual drive trains.

## Biology

**BIO 111      General Biology I**

3   3   4

Prerequisites:

None

Corequisites:

None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. (\*VLC)*

**BIO 112      General Biology II**

3   3   4

Prerequisites:

BIO 111

Corequisites:

None

This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. (\*VLC)*

**BIO 155      Nutrition**

3   0   3

Prerequisites:

None

Corequisites:

None

This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person's acceptance of food as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**BIO 163      Basic Anatomy and Physiology**

4   2   5

Prerequisites:

None

Corequisites:

None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to

homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**BIO 168                      Anatomy and Physiology I**

3    3    4

Prerequisites: None

Corequisites: None

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**BIO 169                      Anatomy and Physiology II**

3    3    4

Prerequisites: BIO 168

Corequisites: None

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

**BIO 175                      General Microbiology**

2    2    3

Prerequisites: BIO 110, BIO 111, BIO 163, BIO 165, or BIO 168

Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**BIO 275                      Microbiology**

3    3    4

Prerequisites: BIO 110, BIO 112, BIO 163, BIO 165, or BIO 168

Corequisites: None

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

## Blueprint Reading

**BPR 111                      Print Reading**

1    2    2

Prerequisite: None

Corequisites: None

This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

### Competencies

#### Student Learning Outcomes

1. Interpret symbols, abbreviations, and line types.
2. Identify and describe types of projection and use of views.
3. Draw freehand sketches.
4. Calculate measurements of features.
5. Identify and interpret dimensioning and tolerancing.

**BPR 121                      Blueprint Reading: Mechanical**

1    2    2

Prerequisites: BPR 111 or MAC 131

Corequisites: None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

**BPR 122                      Blueprint Reading-Mechanical  
Advanced**

1    2    2

Prerequisites: BPR 121 or MAC 132

Corequisites: None

This course covers the interpretation of advanced blueprints. Topics include working drawings of complex parts and the applications of GD & T. Upon

completion, students should be able to interpret drawings of complex parts and mechanisms for features of fabrication, construction, and assembly.

### **BPR 130 Print Reading-Construction**

3 0 3

Prerequisite: None

Corequisites: None

This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

#### **Competencies**

##### **•Student Learning Outcomes**

- 1. Identify the different symbols and line types in a set of working drawings.
- 2. Correctly measure lines to a specific scale using an architectural or engineering scale.
- 3. Demonstrate proficiency in interpreting construction prints in the form of floor plans, elevations, details, schedules, and specifications.
- 4. Convert fractional dimensions to decimal dimensions and decimal dimensions to fractional dimensions.
- 5. Describe and explain the difference between working drawings and construction drawings.

### **BPR 135 Schematics & Diagrams**

2 0 2

Prerequisites: None

Corequisites: None

This course introduces schematics and diagrams used in a variety of occupations. Topics include interpretation of wiring diagrams, assembly drawings, exploded views, sectional drawings, and service manuals, specifications, and charts. Upon completion, students should be able to research and locate components and assemblies denoting factory specifications and requirements from service and repair manuals.

## ***Business***

### **BUS 110 Introduction to Business**

3 0 3

Prerequisites: None

Corequisites: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. (\*VLC)*

#### **Competencies**

##### **•Student Learning Outcomes**

1. Identify various forms of business organizations.
2. Define business vocabulary.
3. Describe the basics of business ethics.
4. Explain basic management principles.

### **BUS 115 Business Law I**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement (\*VLC).*

#### **Competencies**

##### **•Student Learning Outcomes**

1. Identify the elements of a contract.
2. Describe the structure of the U.S. court system.
3. Identify laws, conditions and regulations in national and international work environments.

### **BUS 125 Personal Finance**

3 0 3

Prerequisites: None

Corequisites: None

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

### **BUS 135 Principles of Supervision**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the basic responsibilities and duties of the supervisor and his/her relationship to higher-level supervisors, subordinates, and associates. Emphasis is placed on effective utilization of the work force and understanding the role of the supervisor. Upon completion, students should be able to apply supervisory principles in the work place. *(\*VLC)*

### **BUS 137 Principles of Management**

3 0 3

Prerequisites: None

Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and

communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. (\*VLC)*

#### Competencies

##### •Student Learning Outcomes

1. Explain strategic management in business operations.
2. Define management, quality management, and project management.
3. Identify relevant issues in human resource management.

#### **BUS 147 Business Insurance**

3 0 3

Prerequisites: None

Corequisites: None

This course surveys the basic concepts of risk management. Topics include principles and applications of health, property, life, and casualty insurance. Upon completion, students should be able to evaluate different insurance needs and assist an organization in acquiring adequate insurance coverage.

#### **BUS 153 Human Resource Management**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns. (\*VLC)

#### **BUS 225 Business Finance**

2 2 3

Prerequisites: ACC 120

Corequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

#### **BUS 230 Small Business Management**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan. (\*VLC)

#### **BUS 240 Business Ethics**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

#### **BUS 253 Leadership and Mgt Skills**

3 0 3

Prerequisites: None

Corequisites: None

This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.

#### **BUS 260 Business Communication**

3 0 3

Prerequisites: Take one: ENG 110 or ENG 111

Corequisites: None

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place. (\*VLC)

## **Cabinetmaking**

#### **CAB 110 Shop Operations**

3 3 4

Prerequisites: None

Corequisites: None

This course covers establishing and maintaining a custom cabinet shop. Topics include financing, equipment acquisition, maintenance, inventory techniques, OSHA requirements, shop organization, and safety and delivery systems. Upon completion, students should be able to organize and maintain a custom cabinet business. *This is a diploma-level course.*

#### **CAB 111 Cabinetmaking I**

4 9 7

Prerequisites: None

Corequisites: None

This course introduces wood technology, materials, purchasing, estimating, design considerations, and cabinet construction. Topics include wood identification and use, hand tools, safe machine operation, glue and clamping, abrasives, wood joinery, kitchen and bath layout, laminates, and finishing techniques. Upon completion, students should be able to select and

process materials; make sound production decisions; and design, lay out, construct, and install cabinets.

**CAB 112 Cabinetmaking II**  
5 12 9

Prerequisites: CAB 111

Corequisites: None

This course uses previously learned skills in the design and construction of furniture, European cabinetry, and special cabinet requirements. Topics include furniture repair, wood carving, inlaying, veneering, and millwork products. Upon completion, students should be able to design and construct a piece of furniture, repair defects, and understand the foundation of the 32 mm system. *This is a diploma-level course.*

**CAB 113 Cabinetmaking III**  
4 6 6

Prerequisites: CAB 112

Corequisites: None

This course provides an opportunity to construct a cabinetmaking project. Emphasis is placed on following construction plans, quality construction, and efficient use of time and materials. Upon completion, students should be able to plan and construct an item of furniture and/or set of cabinets. *This is a diploma-level course.*

## Carpentry

**CAR 110 Introduction to Carpentry**  
2 0 2

Prerequisites: None

Corequisites: None

This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

**CAR 111 Carpentry I**  
3 15 8

Prerequisites: None

Corequisites: None

This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. *This is a diploma-level course.*

**CAR 112 Carpentry II**  
3 15 8

Prerequisites: CAR 111

Corequisites: None

This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

**CAR 113 Carpentry III**  
3 9 6

Prerequisites: CAR 111

Corequisites: None

This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

**CAR 114 Residential Building Codes**  
3 0 3

Prerequisites: None

Corequisites: None

This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

**CAR 115 Residential Planning/Estimating**  
3 0 3

Prerequisites: BPR 130

Corequisites: None

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

**CAR 116 Metal Framing**  
1 3 2

Prerequisites: None

Corequisites: None

This course covers basic metal framing associated with residential and light construction. Topics include methods and procedures for framing floor, wall, and roof sections and other related topics. Upon completion, students should be able to properly install various metal framing components.

**CAR 150 Concrete Construction**  
2 9 5

Prerequisite: None

Corequisites: None



This course covers methods of erecting forms and placing concrete. Topics include safety, hand/power tool use, blueprints, rigging, form construction, reinforcement, and placement. Upon completion, students should be able to demonstrate skills in concrete construction procedures and processes with supervision.

## Chemistry

*Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the college's placement test.*

### CHM 131 Introduction to Chemistry

3 0 3

Prerequisites: DMA 040

Corequisites: None

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. (\*VLC)*

### CHM 131A Introduction to Chemistry Lab

0 3 1

Prerequisites: DMA 040

Corequisites: CHM 131

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

### CHM 132 Organic and Biochemistry

3 3 4

Prerequisites: CHM 131 and CHM 131A or CHM 151

Corequisites: None

This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. *This course has been approved to satisfy the Comprehensive Articulation*

*Agreement general education core requirement in natural sciences/mathematics. (\*VLC)*

### CHM 151 General Chemistry I

3 3 4

Prerequisites: DMA 080

Corequisites: None

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

### CHM 152 General Chemistry II

3 3 4

Prerequisites: CHM 151

Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

### CHM 251 Organic Chemistry I

3 3 4

Prerequisites: CHM 152

Corequisites: None

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

### CHM 252 Organic Chemistry II

3 3 4

Prerequisites: CHM 251

Corequisites: None

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of



aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

#### **CHM 271      Biochemical Principles**

3    0    3

Prerequisites: CHM 252

Corequisites: None

The course covers fundamental principles of biochemistry. Topics include structures, properties, reactions, and mechanisms of biomacromolecules including amino acids, peptides, proteins, carbohydrates and nucleic acids, enzymatic metabolic pathways, and biochemical genetics. Upon completion, students should be able to demonstrate an understanding of fundamental biochemical processes. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

#### **CHM 271A      Biochemical Prin Laboratory**

0    3    1

Prerequisites: CHM 252

Corequisites: CHM 271

This course is a laboratory for CHM 271. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 271. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 271. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

### **Computer Information Systems**

#### **CIS 070      Fundamentals of Computing**

0    2    1

Prerequisites: None

Corequisites: None

This course covers fundamental functions and operations of the computer. Topics include identification of components, overview of operating systems, and other basic computer operations. Upon completion, students should be able to operate computers, access files, print documents and perform basic applications operations.

#### **CIS 110      Introduction to Computers**

2    2    3

Prerequisites: None

Corequisites: None

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components,

basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### **CIS 111      Basic PC Literacy**

1    2    2

Prerequisites: None

Corequisites: None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills. *This course is also available through the Virtual Learning Community (VLC).*

#### **CIS 113      Computer Basics**

0    2    1

Prerequisites: None

Corequisites: None

This course introduces basic computer usage for non-computer majors. Emphasis is placed on developing basic personal computer skills. Upon completion, students should be able to demonstrate competence in basic computer applications sufficient to use computer-assisted instructional software. *This course is also available through the Virtual Learning Community (VLC).*

#### **CIS 115      Intro to Programming & Logic**

2    3    3

Prerequisites: Take One Set:

Set 1: DMA-010, DMA-020, DMA-030, and DMA-040

Set 2: MAT-121

Set 3: MAT-171

Corequisites: None

This course introduces computer programming and problem solving in a programming environment. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

### **Criminal Justice**

#### **CJC 100      Basic Law Enforcement Trn**

9    30    19

Prerequisites: None

Corequisites: None

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. *This is a certificate-level course.*

## Communication

*For AA, AS, and AFA programs, 3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.*

### COM 110 Intro. to Communication

3 0 3

Prerequisites: None

Corequisites: None

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition. This course has been approved for transfer under the CAA and ICAA as a Communications course for the following degrees: AS, AA, AAS.*

### COM 231 Public Speaking

3 0 3

Prerequisites: None

Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## Cosmetology

### COS 111 Cosmetology Concepts I

4 0 4

Prerequisites: None

Corequisites: COS 112

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

### COS 112 Salon I

0 24 8

Prerequisites: None

Corequisites: COS 111

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

### COS 113 Cosmetology Concepts II

4 0 4

Prerequisites: None

Corequisites: COS 114

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

### COS 114 Salon II

0 24 8

Prerequisites: None

Corequisites: COS 113

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

### COS 115 Cosmetology Concepts III

4 0 4

Prerequisites: None

Corequisites: COS 116

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

### COS 116 Salon III

0 12 4

Prerequisites: None

Corequisites: COS 115

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 117      Cosmetology Concepts IV**  
2   0   2

Prerequisites: None

Corequisites: COS 118

This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

**COS 118      Salon IV**  
0   21   7

Prerequisites:

Corequisites: COS 117

This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

**COS 119 Esthetics Concepts I**  
2   0   2

Prerequisites: None

Corequisites: None

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

**COS 120 Esthetics Salon I**  
0   18   6

Prerequisites: None

Corequisites: None

This course covers the techniques of esthetics in a comprehensive experience in a simulated salon setting. Topics include client consultation, facials, body treatments, hair removal, make-up applications, and color analysis. Upon completion, students should be able to safely and competently demonstrate esthetic services on clients in a salon setting.

**COS 121      Manicure/Nail Technology I**  
4   6   6

Prerequisites: None

Corequisites: None

This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

**COS 125 Esthetics Concepts II**  
2   0   2

Prerequisites: None

Corequisites: None

This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis. Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

**COS 126 Esthetics Salon II**  
0   18   6

Prerequisites: None

Corequisites: None

This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, massage therapy, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology licensing examination for Estheticians.

**COS 222      Manicure/Nail Technology II**  
4   6   6

Prerequisites: COS 121

Corequisites: None

This course covers advanced techniques of nail technology and hand and arm massage. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.

**COS 224      Trichology & Chemistry**  
1   3   2

Prerequisites: None

Corequisites: None

This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

**COS 240      Contemporary Design**  
1   3   2

Prerequisites: COS 111 and COS 112

Corequisites: None

This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

**COS 250 Computerized Salon Ops**

1 0 1

Prerequisites: None

Corequisites: None

This course introduces computer and salon software. Emphasis is placed on various computer and salon software applications. Upon completion, students should be able to utilize computer skills and software applications in the salon setting.

**COS 251 Manicure Instructor Concepts**

8 0 8

Prerequisites: None

Corequisites: NC Cosmetology or Manicurist License and six months work experience in a cosmetic arts salon

This course introduces manicuring instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervision techniques, and assess student classroom performance.

**COS 252 Manicure Instructor Practicum**

0 15 5

Prerequisites: NC Cosmetology or Manicurist License and six months work experience in a cosmetic arts salon

Corequisites: COS 251

This course covers supervisory and instructional skills for teaching manicuring students in a laboratory setting. Topics include demonstrations of services, supervision, student assessment, and other related topics. Upon completion, students should be able to demonstrate competence in the areas covered by the Manicuring Instructor Licensing Examination and meet program completion requirements.

**COS 253 Esthetics Ins. Concepts I**

6 15 11

Prerequisites: None

Corequisites: None

This course introduces esthetic instructional concepts and skills. Topics include orientation, theories of education, unit planning, daily lesson plans, laboratory management, student assessment in a laboratory setting. Upon completion, students should be able to demonstrate esthetic services and instruct and objectively assess student performance in a classroom setting.

**COS 254 Esthetic Ins. Concepts II**

6 15 11

Prerequisites: None

Corequisites: None

This course covers advanced esthetic instructional concepts and skills. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools record keeping and other related topics. Upon completion, students should be able to demonstrate competencies in the areas covered by the Esthetics Instructor Licensing examination and meet program requirements.

**COS 271 Instructor Concepts I**

5 0 5

Prerequisites: Cosmetology License and six months experience as a licensed cosmetologist

Corequisites: COS 272

This course introduces the basic cosmetology instructional concepts. Topics include orientation, theories of education, unit planning, daily lesson planning, laboratory management, student assessment, record keeping, and other related topics. Upon completion, students should be able to identify theories of education, develop lesson plans, demonstrate supervisory techniques, and assess student performance in a classroom setting.

**COS 272 Instructor Practicum I**

0 21 7

Prerequisites: Cosmetology License and six months experience as a licensed cosmetologist

Corequisites: COS 271

This course covers supervisory and instructional skills for teaching entry-level cosmetology students in a laboratory setting. Topics include demonstrations of services, supervision, and entry-level student assessment. Upon completion, students should be able to demonstrate salon services and instruct and objectively assess the entry-level student.

**COS 273 Instructor Concepts II**

5 0 5

Prerequisites: COS 271 and COS 272

Corequisites: COS 274

This course covers advanced cosmetology instructional concepts. Topics include practical demonstrations, lesson planning, lecture techniques, development and administration of assessment tools, record keeping, and other related topics. Upon completion, students should be able to develop lesson plans, demonstrate supervision techniques, assess student performance in a classroom setting, and keep accurate records.

**COS 274 Instructor Practicum II**

0 21 7

Prerequisites: COS 271 and COS 272

Corequisites: COS 273

This course is designed to develop supervisory and instructional skills for teaching advanced cosmetology students in a laboratory setting. Topics include

practical demonstrations, supervision, and advanced student assessment. Upon completion, students should be able to demonstrate competence in the areas covered by the Instructor Licensing Examination and meet program completion requirements. *This is a certificate-level course.*

## Computer Science

### CSC 134 C++ Programming

2 3 3

Prerequisites: None

Corequisites: None

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. This course is also available through the Virtual Learning Community (VLC).*

### CSC 151 JAVA Programming

2 3 3

Prerequisites: None

Corequisites: None

This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. This course available through VLC.*

## Computer Information Technology

### CTS 115 Info Sys Business Concept

3 0 3

Prerequisites: None

Corequisites: None

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems.

*This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.*

### CTS 120 Hardware/Software Support

2 3 3

Prerequisites: None

Corequisites: None

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

### CTS 130 Spreadsheet

2 2 3

Prerequisites: CIS 110 or CIS 111 or OST 137

Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

### CTS 135 Integrated Software Intro

2 4 4

Prerequisites: CIS 110 or CIS 111

Corequisites: None

This course instructs students in the Windows or Linux based program suites for word processing, spreadsheet, database, personal information manager, and presentation software. This course prepares students for introductory level skills in database, spreadsheet, personal information manager, word processing, and presentation applications to utilize data sharing. Upon completion, students should be able to design and integrate data at an introductory level to produce documents using multiple technologies.

### CTS 285 Systems Analysis & Design

3 0 3

Prerequisites: CIS 115

Corequisites: None

This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

**CTS 289      System Support Project**  
                   1     4     3

Prerequisites: CTS 285  
 Corequisites: None

This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.

## ***Database Management Technology***

**DBA 110      Database Concepts**  
                   2     3     3

Prerequisites: CIS 110  
 Corequisites: None

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

## ***Design Drafting***

**DDF 110      Cabinet Design/Drafting**  
                   1     2     2

Prerequisites: DFT 117  
 Corequisites: None

This course covers the production of shop drawings and equipment lists. Topics include the use of orthographic projections and axonometric, oblique, and perspective projections in production drawings. Upon completion, students should be able to design and produce a set of plans that will facilitate the economical production of a project.

## ***Design***

**DES 135      Principles & Elements of Design I**  
                   2     4     4

Prerequisites: None  
 Corequisites: None

This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

## ***Drafting***

**DFT 111      Technical Drafting I**  
                   1     3     2

Prerequisite: None  
 Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

**DFT 119      Basic CAD**  
                   1     2     2

Prerequisites: None  
 Corequisites: None

This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.

## ***Developmental Mathematics***

**DMA 010      Operations with Integers**  
                   0.75 0.5 1

Prerequisites: None  
 Corequisites: None

This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.

Competencies

- Visually represent an integer and its opposite on the number line
- Explain the concept of the absolute value of an integer
- Demonstrate the conceptual understanding of operations with integers to solve application problems
- Correctly apply commutative and associative properties to integer operations
- Apply the proper use of exponents and calculate the principal square root of perfect squares
- Simplify multi-step expressions using the rules for order of operations
- Solve geometric application problems involving area and perimeter of rectangles and triangles, angles, and correctly apply the Pythagorean theorem

Student Learning Outcomes

- 1.1 Demonstrate an understanding of the concept of integers within contextual application problems

- 1.2 Correctly represent integers on a number line
- 1.3 Demonstrate the correct use of additive inverses
- 1.4 Evaluate the absolute value of a number
- 1.5 Apply integer operations in solving contextual application problems
- 1.6 Correctly apply the associative and commutative properties
- 1.7 Demonstrate understanding of exponents by converting between exponential and expanded form
- 1.8 Evaluate exponents
- 1.9 Calculate the square root of numbers containing perfect squares
- 1.10 Evaluate integer expressions by using the correct order of operations
- 1.11 Distinguish between appropriate use of area and perimeter formulas to solve geometric application problems
- 1.12 Use the Pythagorean Theorem to solve geometric problems
- 1.13 Represent the events of a geometric application problem included in this module pictorially and evaluate the correct solution using the appropriate formula
- 1.14 Demonstrate an understanding of what a variable represents
- 1.15 Evaluate variable expressions and formulas

#### **DMA 020      Fractions and Decimals**

0.75 0.5 1

Prerequisites: DMA 010

Corequisites: None

This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

##### **Competencies**

- Solve contextual application problems involving operations with fractions and decimals
- Visually represent fractions and their decimal equivalents
- Simplify fractions
- Find the lowest common denominator of two fractions
- Correctly perform arithmetic operations on fractions
- Explain the relationship between a number and its reciprocal
- Correctly order fractions and decimals on a number line
- Convert decimals between standard notation and word form
- Round decimals to a specific place value
- Estimate sums, differences, products, and quotients with decimals
- Demonstrate an understanding of the connection between fractions and decimals
- Convert between standard notation and scientific notation

- Solve geometric applications involving the circumference and area of circles

##### **Student Learning Outcomes**

- 2.1 Solve conceptual problems involving fractions and decimals
- 2.2 Visually represent fractions and decimals
- 2.3 Simplify fractions
- 2.4 Visually represent equivalent fractions and correctly place the values on the number line
- 2.5 Add and subtract fractions with like denominators
- 2.6 Write an equivalent fraction with a given denominator
- 2.7 Add and subtract fractions with unlike denominators using the correct LCD
- 2.8 Visually represent the sum and difference of two fractions with unlike denominators
- 2.9 Multiply fractions
- 2.10 Visually represent multiplication of fractions
- 2.11 Divide fractions using reciprocals
- 2.12 Correctly round decimals to a specific place value
- 2.13 Estimate sums, differences, products, and quotients with decimals
- 2.14 Demonstrate an understanding of the connection between fractions and decimals
- 2.15 Distinguish between the appropriate use of circumference and area of a circle in solving geometric applications
- 2.16 Represent events in geometric problems pictorially and evaluate the solution using correct formulas
- 2.17 Correlate negative exponents to fractions and decimals in base 10
- 2.18 Convert between standard notation and scientific notation

#### **DMA 030      Propor/Ratio/Rate/Percent**

0.75 0.5 1

Prerequisites: DMA 010 and DMA 020

Corequisites: None

This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

##### **Competencies**

- Apply the concepts of ratio, rates, proportions, and percents to application problems
- Recognize and choose the correct units in application problems using ratios, rates, and proportions
- Calculate a unit rate
- Convert measurements within and between the U.S. customary and metric system using unit analysis
- Compare percents, decimals, and fractions
- Apply the concepts of part, whole, and percent to solve contextual applications

##### **Student Learning Outcomes**

- 3.1 Demonstrate an understanding of the concepts of



ratios, rates, proportions, and percents in the context of application problems

3.2 Write a ratio using a variety of notations

3.3 Distinguish between events in a problem that should be represented by a ratio or a rate

3.4 Calculate a unit rate

3.5 Convert measurements within the U.S. customary and metric system using unit analysis

3.6 Convert measurements between the U.S. customary and metric systems using unit analysis

3.7 Represent percent as “parts of 100”

3.8 Correctly convert between fractions, decimals, and percents

3.9 Solve application problems using ratios, rates, proportions, and percents

3.10 Recognize that two triangles are similar and solve for unknown sides using proportions in contextual applications

#### **DMA 040 Express/Lin Equat/Inequal**

0.75 0.5 1

Prerequisites: DMA 010, 020 and 030

or

MAT 060

Corequisites: None

This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.

Competencies

- Differentiate between expressions, equations, and inequalities
- Simplify and evaluate, when appropriate, expressions, equations, and inequalities
- Effectively apply algebraic properties of equality
- Correctly represent the solution to an inequality on the number line
- Represent the structure of application problems pictorially and algebraically
- Apply effective problem solving strategies to contextual application problems
- Demonstrate conceptual knowledge by modeling and solving applications using linear equations and inequalities

Student Learning Outcomes

4.1 Demonstrate the use of a problem solving strategy to include multiple representations of the situation, organization of the information, and algebraic representation of linear equations or inequalities

4.2 Represent verbal statements as algebraic expressions, equations, and inequalities

4.3 Distinguish between problem events that use expressions, equations, or inequalities

4.4 Solve linear equations and inequalities in one variable using algebraic properties of equality

4.5 Demonstrate an understanding of the meaning of solutions to problems, i.e. identity, contradiction, conditional

4.6 Represent solutions of inequalities on a number line

#### **DMA 050 Graphs/Equations of Lines**

0.75 0.5 1

Prerequisites: DMA 010, 020, 030, and 040

or

DMA 040 and MAT 060

Corequisites: None

This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

Competencies

- Read and interpret basic graphs to solve problems
- Apply the concept of slope as a rate of change in real-world situations
- Write and graph linear equations in two variables to model real-world situations
- Represent real-world situations as linear equations in two variables in tabular form, graphically, and algebraically

Student Learning Outcomes

5.1 Analyze and interpret basic graphs to solve problems

5.2 Represent real world situations in tabular, graphical, and algebraic equation form using two variables

5.3 Generate a table of values given an equation in two variables and plot in Cartesian plane to graph a line

5.4 Demonstrate an understanding of the concept of slope as a rate of change in real world situations using the slope formula

5.5 Find and interpret the x- and y-intercepts of linear models in real world situations

5.6 Graph linear equations using a variety of strategies

5.7 Given a contextual application, write a linear equation and use the equation to make predictions

5.8 Demonstrate a conceptual understanding of horizontal and vertical lines in terms of slope and graphically

5.9 Demonstrate a conceptual understanding of the concept of an algebraic function

#### **DMA 060 Polynomial/Quadratic Appl**

0.75 0.5 1

Prerequisites: DMA 010, 020, 030, 040 and 050

or

DMA 040, 050 and MAT 060

or

MAT 060 and MAT 070

Corequisites: None



This course provides a conceptual study of problems involving graphic and algebraic representations of quadratics. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications. Competencies

- Represent real-world applications as quadratic equations.
- Apply exponent rules.
- Solve application problems involving polynomial operations.
- Apply the principles of factoring when solving problems.
- Analyze the graph of a quadratic function.

#### Student Learning Outcomes

1. Demonstrate the use of a problem solving strategy to include multiple representations of the situation, organization of the information, and algebraic representation of quadratic equations.
2. Add and subtract polynomials.
3. Apply exponent rules.
4. Multiply polynomials.
5. Divide a polynomial by a monomial.
6. Factor trinomials using multiple methods.
7. Factor the difference of two squares.
8. Solve quadratic applications using the zero product property and critique the reasonableness of solutions found.
9. Given the graph of a parabola, identify the vertex and x-intercepts.

#### **DMA 065 Algebra for Pre-Calculus**

1.5 1 2

Prerequisites: DMA 010, 020, 030, 040 and 050

Corequisites: None

This course provides a study of problems involving algebraic representations of quadratic, rational, and radical equations. Topics include simplifying polynomial, rational, and radical expressions and solving quadratic, rational, and radical equations. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic and rational applications.

#### Competencies

- Represent real-world applications as quadratic equations
- Apply exponent rules
- Solve application problems involving polynomial
- Apply the principles of factoring when solving problems
- Represent and solve contextual application problems involving operations on expressions and/or equations
- Explain the reasonableness of solutions found
- Solve radical equations
- Perform operations with radical expressions

#### Student Learning Outcomes

1. Demonstrate the use of a problem solving strategy to include multiple representations of the situation, organization of the information, and algebraic representation of quadratic and rational equations
2. Add and subtract polynomials
3. Apply exponent rules
4. Multiply polynomials
5. Divide a polynomial by a monomial
6. Factor trinomials using multiple methods
7. Factor the difference of two squares
8. Given the graph of a parabola, identify the vertex and x-intercepts
9. Solve quadratic applications using the zero product property and critique the reasonableness of solutions found
10. Identify the domain of a rational expression
11. Multiply and divide rational expressions
12. Add and subtract rational expressions
13. Solve basic rational equations
14. Use rational exponents to rewrite radical expressions
15. Simplify radical expressions
16. Add and subtract radical expressions
17. Multiply radical expressions
18. Divide radical expressions
19. Solve radical equations with one radical term
20. Solve quadratic equations and applications using the quadratic formula

#### **DMA 070 Rational Express/Equation**

0.75 0.5 1

Prerequisites: DMA 010, 020, 030, 040  
050 and 060

or

DMA 040, 050, 060  
and MAT 060

or

DMA 060, MAT 060  
and MAT 070

or

DMA 010, 020, 030, 060  
and MAT 070

Corequisites: None

This course provides a conceptual study of problems involving graphic and algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications. Competencies

- Represent and solve contextual application problems involving operations on rational expressions and/or equations.
- Explain the reasonableness of solutions found.

**Student Learning Outcomes**

1. Demonstrate the use of a problem solving strategy to include multiple representations of the situation, organization of the information, and algebraic representation of rational equations.
2. Identify the domain of a rational expression.
3. Multiply and divide rational expressions.
4. Add and subtract rational expressions.
5. Solve basic rational equations.

**DMA 080 Radical Express/Equation**

0.75 0.5 1

Prerequisites: DMA 010, 020, 030, 040  
050, 060 and 070

or

DMA 060, 070, and  
MAT 060 and 070

or

DMA 040, 050, 060, 070,  
and MAT 060

or

DMA 010, 020, 030, 060, 070  
and MAT 070

Corequisites: None

This course provides a conceptual study of the manipulation of radicals and the application of radical equations to real-world problems. Topics include simplifying and performing operations with radical expressions and rational exponents, solving equations, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with radical applications.

**Competencies**

- Solve radical equations.
- Explain the reasonableness of solutions found.
- Perform operations with radical expressions.

**Student Learning Outcomes**

1. Use rational exponents to rewrite radical expressions.
2. Simplify radical expressions.
3. Add and subtract radical expressions.
4. Multiply radical expressions.
5. Divide radical expressions.
6. Solve radical equations with one radical term.
7. Solve quadratic equations and applications using the quadratic formula.

**Drama/Theatre****DRA 111 Theatre Appreciation**

3 0 3

Prerequisites: None

Corequisites: None

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon

completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**DRA 126****Storytelling**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the art of storytelling and the oral traditions of folk literature. Topics include the history of storytelling, its value and purpose, techniques of the storyteller, and methods of collecting verbal art. Upon completion, students should be able to present and discuss critically stories from the world's repertoire of traditional lore. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**Developmental Reading/English****DRE 096 Integrated Reading & Writing**

2.5 1 3

Prerequisites: None

Corequisites: None

This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile (TM) range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs. Please note: (TM) stands for registered trademark.

**Competencies**

- Students will demonstrate the use of pre-reading, reading, and post-reading strategies, including using previewing strategies to comprehend texts; activating prior knowledge; identifying text attributes; using context clues; identifying stated main ideas in paragraph-length texts; and making text-to-self connections.
- Students will demonstrate the use of the writing process (prewriting, drafting, revising, editing, and proofreading), including narrowing the focus of the text, establishing a clear main idea, generating supporting details, and determining appropriate organization.
- Students will apply critical thinking strategies in reading and writing and demonstrate an understanding of technical and academic language, including the difference between formal and informal language.
- Students will demonstrate an understanding of purpose, point of view, and tense.
- Students will demonstrate an understanding of fact and opinion in reading and by writing paragraphs using

facts and opinions for support of main ideas.

- Students will recognize inferences in texts and analyze and evaluate graphic materials in a text.
- Students will recognize and compose well-developed, coherent, and unified texts, including writing clear topic sentences and relevant body sentences; demonstrating an understanding of specific and adequate supporting information; and analyzing and evaluating body sentences in texts and student writings for specific and adequate support.
- Students will demonstrate an understanding of coherence through organizational patterns, including employing a variety of organizational patterns to draft texts; and using transitions, key words, and synonyms to connect ideas and achieve coherence in writing.
- Students will apply the conventions of Standard Written English.

### DRE 097 Integrated Reading & Writing II

2.5 1 3

Prerequisites: DRE 096

Corequisites: None

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile (TM) range of 1070 to 1220. Upon completion, students should be able to demonstrate and apply those skills toward understanding a variety of complex academic and career texts and composing essays incorporating relevant, valid evidence. Please note: (TM) represents registered trademark.

Competencies

- Students will demonstrate the use of pre-reading, reading, and post-reading strategies, including applying a variety of previewing strategies to complex texts; activating prior knowledge; identifying important text attributes; using context clues; distinguishing between connotative and denotative meanings and between informal language and Standard Written English; employing introductory metacognitive strategies; identifying stated and implied main ideas at the introductory level; recognizing organizational patterns; responding in writing to complex texts using text-to-text connections; and paraphrasing and summarizing texts at an introductory level.
- Students will demonstrate the use of the writing process (prewriting, drafting, revising, editing, and proofreading), including narrowing the focus of the text; establishing a clear main idea (thesis statement); generating supporting details for a specific purpose and audience; determining appropriate organization; composing and revising drafts; and using MLA or APA guidelines.
- Students will apply critical thinking strategies to analyze complex texts and to inform and strengthen their writing, including making logical conclusions based

on prior knowledge and inference; understanding the difference between formal and informal language; using types of technical and academic language in complex texts; recognizing figurative language; simile, metaphor, and personification; determining the author's purpose, point of view, and tone in complex texts; identifying fact and opinion statements in complex texts; demonstrating an understanding of verbal and situational irony; and understanding bias, logical fallacies, and propaganda techniques.

- Students will identify and write clear thesis statements, including identifying thesis statements in multi-paragraph complex texts, and writing clear, focused thesis statements for essays.
- Students will demonstrate an understanding of specific and adequate supporting information, including analyzing and evaluating body paragraphs in complex texts and student writings for specific and adequate support; assessing, synthesizing, and integrating relevant and valid evidence from assigned readings to support a main idea; avoiding plagiarism by paraphrasing; and documenting source material using MLA or APA guidelines.
- Students will achieve unity and coherence in essays, including identifying points that are off-topic in complex texts, and composing body paragraphs that support the thesis statement of an essay.
- Students will apply the conventions of Standard Written English.
- Students will employ appropriate technology when composing texts.

### DRE 098 Integrated Reading & Writing III

2.5 1 3

Prerequisites: DRE 097

Corequisites: None

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. Note: (TM) represents registered trademark.

Competencies

- Students will demonstrate the use of pre-reading, reading, and post-reading strategies to comprehend texts at the career and college ready level, including activating prior knowledge; identifying important text attributes; using context clues; distinguishing between connotative and denotative meanings and between informal language and Standard Written English; employing metacognitive strategies; identifying stated and implied main ideas and details in career and college ready texts and student writing; recognizing organizational patterns in career and college ready texts; summarizing; and responding to texts using

text-to-world connections.

- Students will demonstrate the use of the writing process (prewriting, drafting, revising, editing, and proofreading), including narrowing the focus of the text; establishing a clear main idea; generating supporting details for a specific purpose and audience; determine appropriate organization; composing and revising drafts; using editing and proofreading strategies to reflect Standard

- Written English; using MLA or APA guidelines.

- Students will apply critical thinking strategies to analyze texts at the career and college ready level and to inform and strengthen writing, including comprehending figurative language--simile, metaphor, personification; interpreting imagery, symbols, and analogies; determining the author's purpose and point of view; identifying fact and opinion statements; using inference skills; demonstrating an understanding of verbal and situational irony; understanding bias, logical fallacies, and propaganda techniques; and demonstrating consistent point of view, clear purpose, appropriate tone, and appropriate use of facts and expert opinions.

- Students will recognize and compose well-developed, coherent, and unified texts, including clear thesis statements and specific and adequate supporting information; analyzing and evaluating body paragraphs in texts at the career and college ready level and student writing; assessing, synthesizing, and integrating relevant and valid evidence; employing a variety of organizational patterns to draft texts and using transitional strategies to connect ideas and achieve coherence; avoiding plagiarism by paraphrasing; and documenting source material using MLA or APA guidelines.

- Students will apply the conventions of Standard Written English.

- Students will employ appropriate technology when composing texts.

### DRE 099 Integrated Reading & Writing III

2 0 2

Prerequisites: DRE 097

Corequisites: ENG 111

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies by complementing, supporting and reinforcing material covered in ENG 111.

Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. Note: (TM) represents registered trademark.

Competencies

- Students will demonstrate the use of pre-reading,

reading, and post-reading strategies to comprehend texts at the career and college ready level, including activating prior knowledge; identifying important text attributes; using context clues; distinguishing between connotative and denotative meanings and between informal language and Standard Written English; employing metacognitive strategies; identifying stated and implied main ideas and details in texts at the career and college ready level and student writing; recognizing organizational patterns; summarizing; and responding to texts using text-to-world connections.

- Students will demonstrate the use of the writing process (prewriting, drafting, revising, editing, and proofreading), including narrowing the focus of the text; establishing a clear main idea; generating supporting details for a specific purpose and audience; determine appropriate organization; composing and revising drafts; using editing and proofreading strategies to reflect Standard Written English; using MLA or APA guidelines.

- Students will apply critical thinking strategies to analyze texts at the career and college ready level and to inform and strengthen writing, including comprehending figurative language - -simile, metaphor, personification; interpreting imagery, symbols, and analogies; determining the author's purpose and point of view; identifying fact and opinion statements; using inference skills; demonstrating an understanding of verbal and situational irony; understanding bias, logical fallacies, and propaganda techniques; and demonstrating consistent point of view, clear purpose, appropriate tone, and appropriate use of facts and expert opinions.

- Students will recognize and compose well-developed, coherent, and unified texts, including clear thesis statements and specific and adequate supporting information; analyzing and evaluating body paragraphs in texts at the career and college ready level and student writing; assessing, synthesizing, and integrating relevant and valid evidence; employing a variety of organizational patterns to draft texts and using transitional strategies to connect ideas and achieve coherence; avoiding plagiarism by paraphrasing; and documenting source material using MLA or APA guidelines.

- Students will apply the conventions of Standard Written English.

- Students will employ appropriate technology when composing texts.

## Economics

ECO 251  
ics

Principles of Microeconom-

3 0 3

Prerequisites: None

Corequisites: None

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**ECO 252 Principles of Macroeconomics**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## Education

**EDU 114 Intro to Family Childcare**

3 0 3

Prerequisites: Take all:

DMA 010, DMA 020, and DMA 030

Corequisites: DRE 097

This course introduces the student to family child care home environments with emphasis on standards and developmentally effective approaches for supporting diverse children and families. Topics include standards for quality, curriculum for multiple age groups, authentic assessment methods, business practices, building positive family and community partnerships, and professionalism. Upon completion, students should be able to design a family child care handbook that reflects a healthy, respectful, supportive, and stimulating learning environment.

**EDU 118 Princ & Prac of Inst Asst**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course covers the instructional assistant's role in the educational system. Topics include history of education, professional responsibilities and ethics, cultural diversity, communication skills, and identification of the optimal learning environment. Upon

completion, students should be able to describe the supporting role of the instructional assistant, demonstrate positive communication skills, and discuss educational philosophy.

**EDU 119 Intro to Early Child Education**

4 0 4

Prerequisites: None

Corequisites: None

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for children. Topics include historical foundations, program types, career options, professionalism, and creating inclusive environments and curriculum that are responsive to the needs of children and families. Upon completion, students should be able design career plans and develop appropriate schedules, environments and activity plans for children. (\*VLC)

**EDU 131 Child, Family, & Commun**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children. This course is also available through the Virtual Learning Community (VLC).

**EDU 144 Child Development I**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. This course is also available through the Virtual Learning Community (VLC). *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**EDU 145 Child Development II**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development. This course is also available through the Virtual Learning Community (VLC). *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**EDU 146 Child Guidance**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors. This course is also available through the Virtual Learning Community (VLC). *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**EDU 151 Creative Activities**

3 0 3

Prerequisites: **None**

Corequisites: DRE 097

This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments. *This course is also available through the Virtual Learning Community (VLC).*

**EDU 151A Creative Activities Lab**

0 2 1

Prerequisites: **None**

Corequisites: DRE 097 and EDU 111

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

**EDU 152 Music, Movement, & Lang**

3 0 3

Prerequisites: None

Corequisites: DRE 097

This course introduces a historical perspective of music and movement and integrates the whole language concept with emphasis on diversity. Emphasis is placed on designing an environment that emphasizes language development through developmentally and culturally appropriate music and movement. Upon completion, students should be able to design an environment that develops language through a music and movement curriculum that emphasizes diversity.

**EDU 152A Music, Move, & Lang Lab**

0 2 1

Prerequisites: None

Corequisites: DRE 097 and EDU 152

This course provides a laboratory component to complement EDU 152. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate music, movement, and language activities.

**EDU 153 Health, Safety, & Nutrition**

3 0 3

Prerequisites: **None**

Corequisites: DRE 097

This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations. *This course is also available through the Virtual Learning Community (VLC).*

**EDU 153A Health, Safety, & Nutrition Lab**

0 2 1

Prerequisites: None

Corequisites: DRE 097 and EDU 153



This course provides a laboratory component to complement EDU 153. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of safe indoor/outdoor environments and nutrition education programs.

**EDU 154      Social/Emotion/Behav Dev**  
3      0      3

Prerequisites: Take one set

Set 1: EDU 144, EDU 145

Set 2: PSY 244, PSY 245

Corequisites: DRE 097

This course covers the emotional/social development of children and the causes, expressions, prevention and management of challenging behaviors in all children. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and intervention strategies. Upon completion, students should be able to identify factors influencing emotional/social development, utilizing screening measures, and designing positive behavioral supports.

**EDU 155      Art & Drama for Children**  
1      2      2

Prerequisites: None

Corequisites: None

This course introduces the use of visual art and drama for children. Emphasis is placed on the development of basic forms and planning, designing, and implementing visual art and drama for children. Upon completion, students should be able to discuss the development of basic form and plan, design, and implement visual art and drama in an educational setting.

**EDU 157      Active Play**  
2      2      3

Prerequisites: None

Corequisites: DRE 097

This course introduces the use of indoor and outdoor physical activities to promote the physical, cognitive, and social/emotional development of children. Topics include the role of active play, development of play skills, playground design, selection of safe equipment, and materials and surfacing for active play. Upon completion, students should be able to discuss the stages of play, the role of teachers in play, and the design of appropriate active play areas and activities.

**EDU 162      Observ & Assess in ECE**  
3      0      3

Prerequisites: None

Corequisites: DRE 097

This course introduces the research, benefits, goals, and ethical considerations associated with observation and assessment in Early Childhood environments.

Emphasis is placed on the implementation of multiple observation/assessment strategies including anecdotal records, event samples, rating scales, and portfolios to create appropriate learning experiences. Upon completion, students should be able to practice responsible assessment and use assessments to enhance programming and collaboration for children and families.

**EDU 163      Classroom Mgt & Instruct**  
3      0      3

Prerequisites: None

Corequisites: DRE 097

This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success.

**EDU 171      Instructional Media**  
1      2      2

Prerequisites: None

Corequisites: DRE 097

This course covers the development and maintenance of effective teaching materials and the operation of selected pieces of equipment. Topics include available community resources, various types of instructional materials and bulletin boards, and audiovisual and computer use with children. Upon completion, students should be able to construct and identify resources for instructional materials and bulletin boards and use audiovisual and computer equipment.

**EDU 173      Becoming a Prof'l in ECE**  
3      0      3

Prerequisites: None

Corequisites: DRE 097

This course is an introduction to the early childhood profession. Emphasis is placed on the NAEYC Ethical Code, professional growth through involvement in professional organizations, and development of a professional portfolio. Upon completion, students should be able to identify professional resources and community partners in order to involve oneself in the early childhood field.

**EDU 175      Intro to Trade & Industri**  
3      0      3

Prerequisites: None

Corequisites: DRE 097

This course introduces the philosophy, scope, and objectives of industrial education. Topics include the

development of industrial education, employment opportunities, current events, current practices, and emerging trends. Upon completion, students should be able to describe the history, identify current practices, and describe current trends in industrial education.

**EDU 176      Occ Analysis & Course Dev**  
3      0      3

Prerequisites: None  
Corequisites: DRE 097

This course covers the principles and techniques of analyzing occupations to select suitable competencies and teaching methods for learning activities. Topics include occupational analysis, instructional methods, competency identification, and curriculum writing. Upon completion, students should be able to identify competencies, organize instructional materials, and select appropriate instructional methods.

**EDU 184      Early Childhood Intro Prac**  
1      3      2

Prerequisites: None  
Corequisites: DRE 097

This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children; and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 216      Foundations of Education**  
4      0      4

Prerequisites: None  
Corequisites: DRE 098

This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, and experiences in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only. This course is also available through the Virtual Learning Community (VLC).*

**EDU 221      Children with Exceptional**  
3      0      3

Prerequisites: Take one set  
Set 1: EDU 144 EDU 145  
Set 2: PSY 244 PSY 245  
Corequisites: DRE 098

This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement at select institutions only. *This course is also available through the Virtual Learning Community (VLC).*

**EDU 222 Learn w/ Behav Disord**  
(EDU 222 replaced EDU 147)  
3      0      3

Prerequisites: Take one set  
Set 1: EDU 144, EDU 145  
Set 2: PSY 244, PSY 245  
Corequisites: DRE 098

This course provides a comprehensive study of learners with behavioral disorders encompassing characteristics, assessments, placement alternatives, inclusion and family interventions. Topics include legislation, appropriate management interventions, and placement options for children with behavior disorders. Upon completion, students should be able to identify, develop, and utilize positive behavior support systems.

**EDU 223      Specific Learning Disab**  
(EDU 223 replaced EDU 148)  
3      0      3

Prerequisites: Take one set  
Set 1: EDU 144, EDU 145  
Set 2: PSY 244, PSY 245  
Corequisites: DRE 098

This course provides a comprehensive study of characteristics, alternative assessments, teaching strategies, placement options, inclusion, and family intervention for children with specific learning disabilities. Topics include causes, assessment instruments, learning strategies, and collaborative/inclusion methods for children with specific learning disabilities. Upon completion, students should be able to assist in identifying, assessing, and providing educational interventions for children with specific learning disabilities and their families.

**EDU 234      Infants, Toddlers, & Twos**  
3      0      3

Prerequisites: EDU 119  
Corequisites: DRE 098

This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development.



Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/twos development, plan/select activities/materials, and partner with diverse families.

**EDU 234A      Infants/Toddlers/Twos Lab**

0    2    1

Prerequisites: None

Corequisites: EDU 234 and DRE 098

This course focuses on practical applications that support the healthy development of very young children by applying principles of quality inclusive early care and education. Emphasis is placed on recognizing the interrelated factors that impact children's development through planning, evaluating and adapting quality environments, including activities and adult/child interactions. Upon completion, students should be able to demonstrate the ability to engage in respectful, responsive care that meets the unique needs of individual children/families.

**EDU 235      School-Age Dev & Program**

3    0    3

Prerequisites: None

Corequisites: DRE 098

This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for all children ages five to twelve and plan and implement developmentally-appropriate activities.

**EDU 241      Adult-Child Relations**

2    0    2

Prerequisites: None

Corequisites: DRE 098

This course covers self-concept and effective and active listening skills in positive one-to-one interactions with individuals and groups of children. Emphasis is placed on self-concept development and effective communication techniques used with children. Upon completion, students should be able to identify principles underlying self-concept and demonstrate effective listening and communication skills used by adults with children.

**EDU 247      Sensory & Physical Disab**

3    0    3

Prerequisites: Take one set

Set 1: EDU 144, EDU 145

Set 2: PSY 244, PSY 245

Corequisites: DRE 098

This course covers characteristics, intervention strategies, assistive technologies, and inclusive practices for

children with sensory and physical disabilities. Topics include inclusive placement options, utilization of support services, other health impairments and family involvement for children with sensory and physical disabilities. Upon completion, students should be able to identify and utilize intervention strategies and service delivery options for those specific disabilities.

**EDU 248      Developmental Delays**

3    0    3

Prerequisites: Take one set

Set 1: EDU 144, EDU 145

Set 2: PSY 244, PSY 245

Corequisites: DRE 098

This course covers the causes and assessment of developmental delays and individualized instruction and curriculum for children with developmental delays. Emphasis is placed on definition, characteristics, assessment, educational strategies, inclusion, family involvement, and services for children with developmental delays. Upon completion, students should be able to identify, assess, and plan educational intervention strategies for children with developmental delays and their families.

**EDU 251      Exploration Activities**

3    0    3

Prerequisites: None

Corequisites: DRE 098

This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

**EDU 251A      Exploration Act Lab**

0    2    1

Prerequisites: None

Corequisites: EDU 251 and DRE 098

This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

**EDU 252      Math & Sci Activities**

3    0    3

Prerequisites: None

Corequisites: DRE 098

This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

**EDU 252A Math & Sci Act Lab**

0 2 1

Prerequisites: None

Corequisites: EDU 252 and DRE 098

This course provides a laboratory component to complement EDU 252. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate math and science activities.

**EDU 261 Early Childhood Admin I**

3 0 3

Prerequisites: None

Corequisites: EDU 119 and DRE 098

This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards. This course is also available through the Virtual Learning Community (VLC).

**EDU 262 Early Childhood Admin II**

3 0 3

Prerequisites: EDU 261

Corequisites: EDU 119 and DRE 098

This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs. This course is also available through the Virtual Learning Community (VLC).

**EDU 271 Educational Technology**

2 2 3

Prerequisites: None

Corequisites: DRE 098

This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environ-

ments. This course is also available through the Virtual Learning Community (VLC).

**EDU 275 Effective Teach Train**

2 0 2

Prerequisites: None

Corequisites: DRE 098

This course provides specialized training using an experienced-based approach to learning. Topics include instructional preparation and presentation, student interaction, time management, learning expectations, evaluation, and curriculum principles and planning. Upon completion, students should be able to prepare and present a six-step lesson plan and demonstrate ways to improve students' time-on-task.

**EDU 280 Language & Literacy Exp**

3 0 3

Prerequisites: None

Corequisites: DRE 098

This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences. This course is also available through the Virtual Learning Community (VLC).

**EDU 280A Literacy Exp Lab**

0 2 1

Prerequisites: None

Corequisites: EDU 280 and DRE 098

This course provides a laboratory component to complement EDU 280. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate early literacy experiences.

**EDU 281 Instruct. Strat./Read & Writ**

2 2 3

Prerequisites: None

Corequisites: DRE 098

This course covers concepts, resources, and methods for teaching reading and writing to elementary through middle-grade children. Topics include the importance of literacy, learning styles, skills assessment, various reading and writing approaches and instructional strategies. Upon completion, students should be able to assess, plan, implement and evaluate school-age literacy experiences as related to the North Carolina Standard Course of Study.

**EDU 284 Early Child Capstone Prac**

1 9 4

Prerequisites: Take one set

Set 1: EDU 119, EDU 144, EDU 145, EDU 146, EDU 151

Set 2: EDU 119, PSY 244, PSY 245, EDU 146, EDU 151

Set 3: EDU 119, PSY 245, EDU 144, EDU 146, EDU 151

Set 4: EDU 119, PSY 244, EDU 145, EDU 146, EDU 151

Corequisites: DRE 098

This course is designed to allow students to apply skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 285 Internship Exp-School Age**

1 9 4

Prerequisites: Take one set

Set 1: EDU 144, EDU 145, EDU 118, EDU 163

Set 2: PSY 244, PSY 245, EDU 118, EDU 163

Set 3: PSY 244, EDU 145, EDU 118, EDU 163

Set 4: EDU 144, PSY 245, EDU 118, EDU 163

Set 5: PSY 244, PSY 245, EDU 216, EDU 163

Set 6: EDU 144, EDU 145, EDU 216, EDU 163

Set 7: EDU 144, PSY 245, EDU 216, EDU 163

Set 8: PSY 244, EDU 216, EDU 163

Corequisites: DRE 098

This course is designed to allow students to apply skills in a quality public or private school environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate lesson plans/assessments, appropriate guidance techniques, ethical/professional behaviors as indicated by assignments and onsite faculty visits.

**EDU 289 Adv Issues/School Age**

0 2 1

Prerequisites: None

Corequisites: DRE 098

This course covers advanced topics and issues that relate to school-age programs. Emphasis is placed on current advocacy issues, emerging technology, professional growth, ethics, and organizations for providers/teachers working with school-age populations. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues surrounding school-aged populations.

***Electricity*****ELC 111 Intro to Electricity**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112 DC/AC Electricity**

3 6 5

Prerequisite: None

Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

Competencies

- 1. Demonstrate safe practices and procedures with tools, materials, and industry accepted test equipment covered in the course.
- 2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to electrical circuits.
- 3. Construct and analyze series, parallel and combinations circuits using appropriate components.
- 4. Use appropriate laws and formulas to perform circuit calculations.
- 5. Interpret electrical schematics.
- 6. Describe the characteristics of various power sources.

**ELC 113 Residential Wiring**

2 6 4

Prerequisite: None

Corequisites: None

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print

reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.

#### Competencies

##### •Student Learning Outcomes

- 1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
- 2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to residential electrical circuits.
- 3. Draw, plan and interpret electrical plans and symbols used in residential applications
- 4. Identify, size, and install wiring and electrical distribution equipment and devices associated with residential electrical installations in accordance with the National Electrical Code.
- 5. Recognize and demonstrate appropriate use of tools and materials that are used in residential wiring.

#### **ELC 115            Industrial Wiring**

2    6    4

Prerequisites: None

Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

#### Competencies

##### Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to industrial electrical circuits.
3. Draw, plan, and interpret electrical plans and symbols used in industrial applications.
4. Identify, size, and install wiring and electrical distribution equipment and devices associated with industrial electrical installations in accordance with the National Electrical Code.
5. Recognize and demonstrate appropriate use of tools and materials that are used in industrial wiring.

#### **ELC 128            Intro to PLC**

2    3    3

Prerequisite: None

Corequisites: None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules,

power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.

#### Competencies

##### •Student Learning Outcomes

- 1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
- 2. List and describe the hardware components used in PLC systems.
- 3. Utilize numbering systems as applied to PLCs.
- 4. Demonstrate and describe the use of various PLC instruction sets.
- 5. Create various simple PLC programs using the appropriate instruction set.
- 6. Apply appropriate troubleshooting methods to PLCs.

#### **ELC 131            Circuit Analysis**

3    3    4

Prerequisite: None

Corequisites: None

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

#### Competencies

##### Student Learning Outcomes

- 1. Identify and describe the operation of components used in DC/AC circuits.
- 2. Apply math formulas and circuit theorems in the analyses of DC/AC Circuits.
- 3. Locate and select DC/AC devices using component specifications based on circuit requirements.
- 4. Construct series, parallel and combination circuits.
- 5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
- 6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
- 7. Identify and demonstrate safe workplace practices.

#### **ELC 213            Instrumentation**

3    2    4

Prerequisites: None

Corequisites: None

This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.

## *Electronics*

### **ELN 131      Analog Electronics**

3    3    4

Prerequisites: None

Corequisites: None

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

Competencies

Student Learning Outcomes

1. Identify and describe operation of semiconductor devices.
2. Analyze where and how analog components are used.
3. Locate and select analog devices using component specifications based on circuit requirements.
4. Construct operational circuits using analog devices.
5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
7. Identify and demonstrate safe workplace practices.

### **ELN 133      Digital Electronics**

3    3    4

Prerequisite: None

Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

Competencies

•Student Learning Outcomes

- 1. Identify and describe the operation of digital electronic devices and circuits.
- 2. Analyze where and how digital electronics circuits are used.
- 3. Locate and select digital electronic devices using component specifications based on circuit requirements.
- 4. Construct operational circuits using digital devices.
- 5. Select and demonstrate the use of appropriate test equipment to analyze circuit operation.
- 6. Using appropriate troubleshooting techniques evaluate circuit performance applying suitable repair methods.
- 7. Identify and demonstrate safe workplace practices.

### **ELN 135      Electronic Circuits**

2    3    3

Prerequisites: None

Corequisites: None

This course covers discrete component amplifiers, power supplies, wave-shaping, oscillators, and special purpose ICs. Topics include feedback, analog arithmetic circuits, current and voltage sources, amplifiers, timers, filters, regulators, and other related circuits. Upon completion, students should be able to determine, by the configuration, the function of common analog circuits and troubleshoot circuits based on applications.

### **ELN 140      Semiconductor Devices**

4    6    6

Prerequisites: None

Corequisites: None

This course covers semiconductor devices and circuits as they apply to the area of electronic servicing. Topics include semiconductor theory, diodes, transistors, linear integrated circuits, biasing, amplifiers, power supplies, and other related topics. Upon completion, students should be able to construct, verify, analyze, and troubleshoot semiconductor circuits.

### **ELN 141      Digital Fundamentals**

4    6    6

Prerequisites: None

Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, logic elements, Boolean algebra, Demorgan's theorem, logic families, flip flops, registers, counters, and other related topics. Upon completion, students should be able to analyze, verify, and troubleshoot digital circuits

### **ELN 229      Industrial Electronics**

3    3    4

Prerequisite: None

Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to construct and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

Competencies

Student Learning Outcomes

- 1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
- 2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to semiconductor devices.
- 3. Describe the properties and operation of semiconductors.

- 4. Identify the schematic symbols associated with semiconductor devices.
- 5. Construct and analyze operational circuits using semiconductor devices.

**ELN 231 Industrial Controls**

2 3 3

Prerequisites: None

Corequisites: None

This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

**ELN 233 Microprocessor Systems**

3 3 4

Prerequisites: None

Corequisites: None

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

**ELN 247 Electronic App Project**

1 3 2

Prerequisites: None

Corequisites: None

This course provides a structured approach to an application-oriented electronics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting an application-oriented project. Upon completion, students should be able to present and demonstrate an electronics application-oriented project.

**ELN 275 Troubleshooting**

1 3 2

Prerequisites: None

Corequisites: None

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

**Engineering****EGR 125****Appl Software for Tech**

1 2 2

Prerequisite: None

Corequisites: None

This course introduces personal computer software and teaches students how to customize the software for technical applications. Emphasis is placed on the use of common office applications software programs such as spreadsheets, word processing, graphics, and internet access. Upon completion, students should be able to demonstrate competency in using applications software to solve technical problems and communicate the results in text and graphical formats.

**EGR 150****Intro. to Engineering**

1 2 2

Prerequisite: None

Corequisites: None

This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.*

**English**

*Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by the college's placement test.*

**ENG 101****Applied Communications I**

3 0 3

Prerequisites: None

Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. *This is a diploma-level course.*

**ENG 111 Writing and Inquiry**

3 0 3

Prerequisites: Take one set:

Set 1: ENG 090 and RED 090

Set 2: ENG 095

Set 3: DRE 098

Corequisites: None

This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

**Competencies****Student Learning Outcomes**

1. Demonstrate writing as a recursive process.
2. Demonstrate writing and inquiry in context using different rhetorical strategies to reflect, analyze, explain, and persuade in a variety of genres and formats.
3. Students will reflect upon and explain their writing strategies.
4. Demonstrate the critical use and examination of printed, digital, and visual materials.
5. Locate, evaluate, and incorporate relevant sources with proper documentation.
6. Compose texts incorporating rhetorically effective and conventional use of language.
7. Collaborate actively in a writing community.

**ENG 112 Writing/Research in the Disciplines**

3 0 3

Prerequisites: ENG 111

Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines. *This course has been approved for transfer under the CAA as a general education course in English Composition. This course has been approved for transfer under the ICAA as a general education course in English Composition.*

**ENG 231 American Literature I**

3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114

Corequisites: None

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical

and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

**Competencies****Student Learning Outcomes**

1. Describe, analyze, interpret and evaluate features of literary texts in several genres, applying appropriate literary and cultural terms.
2. Critically analyze and interpret American literature from its beginnings to 1865 within historical and cultural contexts.
3. Write critical essays about American literature that integrate primary and secondary sources using MLA documentation and standard academic written conventions.

**ENG 232 American Literature II**

3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114

Corequisites: None

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

**Competencies**

1. Describe, analyze, interpret, and evaluate features of literary texts in several genres, applying appropriate literary and cultural terms.
2. Critically analyze and interpret American literature from 1865 to the present within historical and cultural contexts.
3. Write critical essays about American literature that integrate primary and secondary sources using MLA documentation and standard academic written conventions.

**ENG 241 British Literature I**

3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114

Corequisites: None

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

**ENG 242 British Literature II**

3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114

Corequisites: None



This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

**ENG 251 Western World Literature I**

3 0 3

Prerequisites: ENG 112, ENG 113,  
or ENG 114

Corequisites: None

This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**ENG 272 Southern Literature**

3 0 3

Prerequisites: ENG 112, ENG 113,  
or ENG 114

Corequisites: None

This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**ENG 273 African-American Literature**

3 0 3

Prerequisites: ENG 112, ENG 113, or ENG 114

Corequisites: None

This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. (\*VLC)*

## French

**FRE 111 Elementary French I**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**FRE 112 Elementary French II**

3 0 3

Prerequisites: FRE 111

Corequisites: None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## Graphic Design

**GRD 110 Typography I**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.

**GRD 121 Drawing Fundamentals I**

1 3 2

Prerequisites: None

Corequisites: None

This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works.



**GRD 131 Illustration I**

1 3 2

Prerequisites: ART 131, DES 125, or GRD 121

Corequisites: None

This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork.

**GRD 141 Graphic Design I**

2 4 4

Prerequisites: None

Corequisites: None

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

**GRD 142 Graphic Design II**

2 4 4

Prerequisites: ART 121, DES 135, or GRD 141

Corequisites: None

This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.

**GRD 151 Computer Design Basics**

1 4 3

Prerequisites: None

Corequisites: None

This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.

**GRD 152 Computer Design Tech I**

1 4 3

Prerequisites: GRD 151

Corequisites: None

This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.

**GRD 160 Photo Fundamentals I**

1 4 3

Prerequisites: None

Corequisites: None

This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality.

**GRD 180 Interactive Design**

1 4 3

Prerequisites: GRD 151 or GRA 151

Corequisites: None

This course covers skills and techniques used in designing interactive presentations. Emphasis is placed on design, including interface design, color, illustration, scripting, audio, typography, and animated elements. Upon completion, students should be able to design and produce interactive presentations.

**GRD 241 Graphic Design III**

2 4 4

Prerequisites: DES 136 or GRD 142

Corequisites: None

This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.

**GRD 242 Graphic Design IV**

2 4 4

Prerequisites: GRD 241

Corequisites: None

This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction.

**GRD 249 Advanced Design Practice**

1 9 4

Prerequisites: GRD 241

Corequisites: None

This course covers advanced techniques used in graphic design. Emphasis is placed on providing solutions to complex design problems. Upon completion, students should be able to demonstrate advanced levels of competence and professionalism in visual problem solving.

**GRD 263 Illustrative Imaging**

1 4 3

Prerequisites: GRD 151 or GRA 151

Corequisites: None

This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives.

**GRD 271      Multimedia Design I**  
1      3      2

Prerequisites: GRD 151

Corequisites: None

This course introduces the fundamentals of multimedia design and production for computer-related presentations. Topics include interface design, typography, storyboarding, scripting, simple animation, graphics, digital audiovideo, and copyright issues. Upon completion, students should be able to design and produce multimedia presentations.

**GRD 280      Portfolio Design**  
2      4      4

Prerequisites: GRD 142 and GRD 152 or GRA 152

Corequisites: None

This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a résumé and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.

**GRD 281      Design of Advertising**  
2      0      2

Prerequisites: None

Corequisites: None

This course explores the origins, roles, scope, forms, and development of advertising. Emphasis is placed on advertising development from idea through production and the interrelationship of marketing to types of advertising, media, and organizational structure. Upon completion, students should be able to demonstrate an understanding of the complexities and relationships involved in advertising design.

**GRD 285      Client/Media Relations**  
1      2      2

Prerequisites: GRD 142 and GRD 152

Corequisites: None

This course introduces media pricing, scheduling, and business ethics. Emphasis is placed on communication with clients and determination of clients' advertising needs. Upon completion, students should be able to use professional communication skills to effectively orchestrate client/media relationships.

## Health Information Technology

**HIT 110      Fundamentals of HIM**  
3      0      0      3

Prerequisites: DRE 098

Corequisites: None

This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations, and initiatives; payment and reimbursement systems and healthcare providers and disciplines; and Electronic Health Records (EHRs). Upon completion, students should be able to demonstrate an understanding of health information management and healthcare organizations, professions, and trends.

**HIT 112      Health Law and Ethics**  
3      0      0      3

Prerequisites: DRE 098

Corequisites: None

This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards. *This course is also available through the Virtual Learning Community (VLC).*

**HIT 114      Health Data Sys/Standards**  
2      3      0      3

Prerequisites: DRE 098

Corequisites: None

This course covers basic concepts and techniques for managing and maintaining manual and electronic health records (EHRs). Topics include structure and use of health information including data collection and analysis, data sources/sets, archival systems, and quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply organization-wide clinical documentation guidelines and comply with regulatory standards.

**HIT 122      Prof Practice Exp I**  
0      0      3      1

Prerequisites: HIT 112

Corequisites: None

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

**HIT 124 Prof Practice Exp II**

0 0 3 1

Prerequisites: HIT 112

Corequisites: None

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

**HIT 210 Healthcare Statistics**

2 2 0 3

Prerequisites: MAT 110 or 143

Corequisites: None

This course covers maintenance, compilation, analysis, and presentation of healthcare statistics and research protocols and techniques. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, research protocol monitoring, Institutional Review Board processes, and knowledge-based research techniques. Upon completion, students should be able to apply, interpret, and present healthcare statistics and utilize research techniques to gather and interpret healthcare data.

**HIT 211 ICD Coding**

2 6 0 4

Prerequisites: BIO 166 or 169, and MED 122, and HIT 110

Corequisites: None

This course covers ICD diagnostics and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical and reimbursement purposes.

**HIT 214 CPT/Other Coding Systems**

1 3 0 2

Prerequisites: HIT 211

Corequisites: None

This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/nomenclature systems such as SNOMED, DSM, ICD-O and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.

**HIT 215 Reimbursement Methodology**

1 2 0 2

Prerequisites: DRE 098

Corequisites: None

This course covers reimbursement methodologies used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include prospective payment systems, billing process and procedures, chargemaster maintenance, regulatory guidelines, reimbursement monitoring, and compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.

**HIT 216 Quality Management**

1 3 0 2

Prerequisites: HIT 114

Corequisites: None

This course introduces principles of quality assessment and improvement, and utilization, risk, and case management, in healthcare. Topics include Continuous Quality Improvement, and case management processes, data analysis/reporting techniques, credentialing, regulatory quality monitoring requirements, and outcome measures and monitoring. Upon completion, students should be able to abstract, analyze, and report clinical data for facility-wide quality management/performance improvement programs and monitor compliance measures.

**HIT 218 Mgmt Principles in HIT**

3 0 0 3

Prerequisites: HIT 110

Corequisites: None

This course covers organizational management concepts as applied to healthcare settings. Topics include roles/functions of teams/committees, leadership, communication and interpersonal skills, designing and implementing orientation/training programs, monitoring workflow, performance standards, revenue cycles, and organizational resources. Upon completion, students should be able to apply management, leadership, and supervisory concepts to various healthcare settings.

**HIT 220 Health Informatics & EHRs**

1 2 0 2

Prerequisites: HIT 114 and CIS 110

Corequisites: None

This course covers EHR systems, design, implementation and application. Topics include EHR, Informatics, speech & imaging technology, information/network security & integrity, data dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.

**HIT 221 Lifecycle of EHR**

2 2 0 3

Prerequisites: DRE 098

Corequisites: None

This course covers the system selection, design and implementation of an electronic health record (EHR) in integrated delivery networks. Topics include the system development life cycle, analysis of existing systems, required resources, and common resource constraints. Upon completion, students should be able to understand system development life cycles, analyze design and engineering, and make recommendations to improve efficiency of operations.

**HIT 222 Prof Practice Exp III**

0 0 6 2

Prerequisites: HIT 122

Corequisites: None

This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.

**HIT 225 Healthcare Informatics**

3 2 0 4

Prerequisites: DRE 098

Corequisites: None

This course covers data analysis to support decision making, patient care, and regulatory compliance. Topics include clinical terminology and vocabulary systems, data capture methodology, data presentation and reporting, and initiatives to improve the quality of patient care. Upon completion, students should be able to identify data elements and sets, analyze capture methodology in healthcare settings, analyze compliance issues and make improvement recommendations.

**HIT 226 Principles of Disease**

3 0 0 3

Prerequisites: BIO 166 or BIO 169 and MED 122

Corequisites: None

This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.

**HIT 227 Informatics Project Mgt.**

2 2 0 3

Prerequisites: DRE 098

Corequisites: None

This course covers the required skills needed for implementing healthcare IT applications, with emphasis on electronic health records (EHR). Topics include leadership development skills, interdisciplinary collaboration, organizational change management, project management software, and the study of communication skills required across healthcare disciplines. Upon completion, students should be able to effectively collaborate and communicate with healthcare disciplines to implement informatics projects within the healthcare setting.

**HIT 280 Professional Issues**

2 0 0 2

Prerequisites: HIT 211 and must be during the last semester of program

Corequisites: None

This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains and subdomains for health information technologies. This course will prepare students for the RHIT Certification Exam.

## History

**HIS 111 World Civilizations I**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**HIS 112 World Civilizations II**

3 0 3

Prerequisites: None

Corequisites: None

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**HIS 131 American History I**

3 0 3

Prerequisites: None

Corequisites: None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.

*This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

**HIS 132 American History II**

3 0 3

Prerequisites: None

Corequisites: None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

## Humanities

**HUM 115 Critical Thinking**

3 0 3

Prerequisites: Take One Set

Set 1: DRE 098

Set 2: ENG 090 and RED 090

Set 3: ENG 095

Corequisites: None

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.*

**HUM 122 Southern Culture**

3 0 3

Prerequisites: None

Corequisites: None

This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts.

Upon completion, students should be able to identify the characteristics that distinguish Southern culture. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## Hydraulics

**HYD 110 Hydraulics/Pneumatics I**

2 3 3

Prerequisites: None

Corequisites: None

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting. Emphasis will be placed on drawing of hydraulic and pneumatic circuits. Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to fluid power systems.
3. Identify components of fluid power systems using symbols and schematics.
4. Assemble a fluid power system.
5. Calculate and demonstrate the basic physics of fluid mechanics.

## Industrial Science

**ISC 110 Workplace Safety**

1 0 1

Prerequisites: None

Corequisites: None

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace. (\*VLC)

**ISC 112 Industrial Safety**

2 0 2

Prerequisites: None

Corequisites: None

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should

be able to demonstrate knowledge of a safe working environment and OSHA compliance.

#### Competencies

#### Student Learning Outcomes

1. Describe and identify safety practices required to perform various job-related activities.
2. Describe the application of OSHA procedures and requirements for compliance. (\*VLC)

#### ISC 115 Construction Safety

2 0 2

Prerequisites: None

Corequisites: None

This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

#### ISC 121 Envir Health & Safety

3 0 3

Prerequisites: None

Corequisites: None

This course covers workplace environmental, health, and safety issues. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental, health, and safety issues.

#### ISC 130 Intro to Quality Control

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the philosophies, principles, and techniques of managing quality. Topics include the functions, responsibilities, structures, costs, reports, personnel, and vendor-customer relationships associated with quality control and management. Upon completion, students should be able to demonstrate an understanding of quality control and management.

#### ISC 210 Oper & Prod Planning

3 0 3

Prerequisites: None

Corequisites: None

This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

## Machining

#### MAC 111 Machining Technology I

2 12 6

Prerequisites: None

Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

#### MAC 112 Machining Technology II

2 12 6

Prerequisites: None

Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

#### MAC 113 Machining Technology III

2 12 6

Prerequisites: None

Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

#### MAC 114 Introduction to Metrology

2 0 2

Prerequisites: None

Corequisites: None

This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

#### MAC 121 Intro to CNC

2 0 2

Prerequisites: None

Corequisites: None

This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

**MAC 122 CNC Turning**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

**MAC 124 CNC Milling**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 151 Machining Calculations**

1 2 2

Prerequisites: None

Corequisites: None

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

**MAC 152 Adv Machining Calc**

1 2 2

Prerequisites: None

Corequisites: None

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

**MAC 222 Advanced CNC Turning**

1 3 2

Prerequisites: None

Corequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

**MAC 224 Advanced CNC Milling**

1 3 2

Prerequisites: MAC 124

Corequisites: None

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is

placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

**MAC 231 CAM: CNC Turning**

1 4 3

Prerequisite: None

Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, including machine selection, tool selection, operational sequence, speed, feed, and cutting depth.

**MAC 232 CAM: CNC Milling**

1 4 3

Prerequisite: None

Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

***Maintenance*****MNT-110 Intro to Maint Procedures**

1 3 2

Prerequisite: None

Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

**Competencies****Student Learning Outcomes**

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Identify and demonstrate use of hand tools.
3. Identify grades of bolts and fasteners and demonstrate proper tightening techniques
4. Describe the operation of and assemble mechanical power transmissions and systems.
5. Identify bearings, seals, gaskets, and packing material and demonstrate appropriate assembly techniques.
6. Perform preventative and predictive maintenance and mechanical troubleshooting.



## Masonry

### MAS 140      Intro to Masonry

1    2    2

Prerequisites: None

Corequisites: None

This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

## Mathematics

*Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that college's placement test.*

### MAT 110      Math Measurement & Literacy

2    2    3

Prerequisites: Take all:

DMA-010, DMA-020, and DMA-030

Corequisites: None

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

Competencies

•Student Learning Outcomes

1. Demonstrate estimation skills and justify results.
2. Use dimensional analysis to convert units of measurement.
3. Employ fractions, percentages and proportions to solve contextual problems.
4. Compute geometric measurements of perimeter, area, volume and angles.
5. Use technology to analyze and interpret elements of personal finance.
6. Compare and contrast measures of center and measures of dispersion.
7. Interpret tables, charts, and graphs and communicate results.

### MAT 121      Algebra and Trigonometry I

2    2    3

Prerequisites: Take all:

Set 1: DMA-010, DMA-020, DMA-030, DMA-040, DMA 050 and DMA-060

Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

Competencies

•Student Learning Outcomes

1. Use geometric principles to solve industrial application problems involving perimeter, area, and volume.
2. Employ basic algebraic operations to simplify, evaluate, and solve proportions, radical and other algebraic functions, equations, and inequalities.
3. Perform basic algebraic operations involving complex numbers.
4. Solve applied problems using trigonometric principles involving right triangles.
5. Solve applied problems using systems of equations involving two and three variables.
6. Use technology to solve practical problems and communicate results.

### MAT 122      Algebra/Trigonometry II

2    2    3

Prerequisites: MAT 121, 161, 171, or 175

Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors, and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

### MAT 143      Quantitative Literacy

2    2    3

Prerequisites: Take One Set:

Set 1: DMA-010, DMA-020, DMA-030, and DMA-040

Set 1: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and DRE-098

Set 2: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and ENG-095\*

Set 3: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and RED-090\*

Corequisites: None

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based



assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. *This course has been approved for transfer under the CAA as a general education course in Mathematics (Quantitative). This course has been approved for transfer under the ICAA as a general education course in Mathematics (Quantitative).*

#### Competencies

##### Student Learning Outcomes

1. Judge the reasonableness of results using estimation, logical processes, and a proper understanding of quantity
2. Utilize proportional reasoning to solve contextual problems and make conversions involving various units of measurement
3. Identify, interpret, and compare linear and exponential rates of growth to make predictions and informed decisions based on data and graphs
4. Differentiate between simple and compound interest and analyze the long-term effects of saving, investing, and borrowing
5. Describe, analyze, and interpret statistical information such as graphs, tables, and summarized data to draw appropriate conclusions when presented with actual statistical studies
6. Determine probabilities and expected values and use them to assess risk and make informed decisions
7. Analyze civic and/or societal issues and critique decisions using relevant mathematics

#### **MAT 152      Statistical Methods I**

3      2      4

Prerequisites: Take All: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and DRE-098

Corequisites: None

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results. *This course has been approved for transfer under the CAA as a general education course in Mathematics (Quantitative). This course has been approved for transfer under the ICAA as a general education course in Mathematics (Quantitative).*

#### Competencies

##### Student Learning Outcomes

1. Organize, display, calculate, and interpret descriptive statistics
2. Apply basic rules of probability
3. Identify and apply appropriate probability distributions
4. Perform regression analysis
5. Analyze sample data to draw inferences about a population parameter
6. Communicate results through a variety of media

#### **MAT 171      Precalculus Algebra**

3      2      4

Prerequisites: Take One Set:

Set 1: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, DMA-060, DMA-070, and DMA-080

Set 2: DMA-010, DMA-020, DMA-030, DMA-040, DMA-050, and DMA-065

Set 3: MAT-121

Corequisites: None

This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### Competencies

##### •Student Learning Outcomes

1. Use analytical, graphical, and numerical representations to solve absolute value, radical, polynomial, rational, exponential, and logarithmic equations with both real and complex solutions.
2. Use analytical, graphical, and numerical representations to solve absolute value, polynomial and rational inequalities with real solutions.
3. Use analytical, graphical, and numerical representations to analyze absolute value, radical, polynomial, rational, exponential and logarithmic functions with both real and complex zeros.
4. Use multiple methods to solve problems involving systems of equations and apply to decomposing partial fractions.
5. Construct the composition and inverse of functions.
6. Use polynomial, exponential and logarithmic functions to model various real world situations in order to analyze, draw conclusions, and make predictions.

#### **MAT 172      Precalculus Trigonometry**

3      2      4

Prerequisites: MAT 171

Corequisites: None

This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### Competencies

##### Student Learning Outcomes

1. Use the unit circle and right triangle definitions to evaluate and graph trigonometric functions and their inverses, to derive trigonometric identities, and to simplify trigonometric expressions.
2. Use multiple methods to solve problems involving trigonometric equations, right triangles, and oblique triangles.
3. Demonstrate knowledge of vector definitions and perform vector operations.
4. Convert equations and graphs between rectangular and polar coordinate systems, and apply to complex numbers.
5. Use multiple representations to define, construct and analyze conic sections.
6. Create, graph, and analyze parametric equations.

#### MAT 271 Calculus I

3 2 4

Prerequisites: MAT 172

Corequisites: None

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### Competencies

##### Student Learning Outcomes

1. Apply the definition of limit to evaluate limits by multiple methods and use it to derive the definition and rules for differentiation and integration.
2. Use derivatives to analyze and graph algebraic and transcendental functions.
3. Select and apply appropriate models and differentiation techniques to solve problems involving algebraic and transcendental functions; these problems will include but are not limited to applications involving optimization and related rates.
4. Apply the definition of indefinite integral to solve basic differential equations.
5. Apply the definition of definite integral to evaluate basic integrals.

6. Use the fundamental theorem of calculus to evaluate integrals involving algebraic and transcendental functions.

#### MAT 272 Calculus II

3 2 4

Prerequisites: MAT 271

Corequisites: None

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### Competencies

##### Student Learning Outcomes

1. Select and apply appropriate models and integration techniques to solve problems involving algebraic and transcendental functions; these problems will include but are not limited to applications involving volume, arc length, surface area, centroids, force and work.
2. Evaluate proper and improper integrals using various integration techniques.
3. Analyze the convergence and divergence of infinite sequences and series and find the Taylor and McLaurin representations for transcendental functions.
4. Use differentiation and integration to analyze the graphs of polar form equations and parametric form equations.
5. Solve separable and first-order linear differential equations.
6. Analyze and graph conic sections using calculus techniques.

#### MAT 273 Calculus III

3 2 4

Prerequisites: MAT 272

Corequisites: None

This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

#### Competencies

##### Student Learning Outcomes

1. Perform operations with vectors in two and three dimensional space and apply to analytic geometry.
2. Differentiate and integrate vector-valued functions

and apply calculus to motion problems in two and three dimensional space.

3. Determine the limits, derivatives, gradients, and integrals of multivariate functions.

4. Solve problems in multiple integration using rectangular, cylindrical, and spherical coordinate systems.

5. Select and apply appropriate models and techniques to define and evaluate line and surface integrals; these techniques will include but are not limited to Green's, Divergence, and Stoke's theorems.

6. Demonstrate proficiency in using CAS technology to analyze, solve and interpret the various applications.

### **MAT 280                      Linear Algebra**

2                      2                      3

Prerequisites: MAT 271

Corequisites: None

This course provides an introduction to linear algebra topics. Emphasis is placed on the development of abstract concepts and applications for vectors, systems of equations, matrices, determinants, vector spaces, multi-dimensional linear transformations, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to linear algebra-related problems with and without technology.

Competencies

·Student Learning Outcomes

1. Use analytical and graphical representations to apply vector operations in multiple-dimensions.

2. Solve systems of linear equations using multiple manual and technology-based methods; these methods will include but are not limited to Gaussian and Gauss-Jordan.

3. Use eigenvalues, eigenvectors and diagonalization to solve problems in appropriate situations.

4. Use matrix operations and linear transformations to solve problems in appropriate situations.

5. Demonstrate knowledge of orthogonal projections and orthogonal complements of subspaces, and apply to appropriate situations.

6. Use the fundamental concept of a basis for a subspace to give a precise definition of dimensions and rank, and to solve problems in appropriate situations.

7. Demonstrate proficiency in using CAS technology to analyze, solve and interpret the various applications.

*College Transfer: This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.*

### **MAT 285                      Differential Equations**

2                      2                      3

Prerequisites: MAT 272

Corequisites: None

This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors,

and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology.

Competencies

·Student Learning Outcomes

1. Find general solutions to first-order, second-order, and higher-order homogeneous and non-homogeneous differential equations by manual and technology-based methods.

2. Identify and apply initial and boundary values to find particular solutions to first-order, second-order, and higher order homogeneous and non-homogeneous differential equations by manual and technology-based methods, and analyze and interpret the results.

3. Select and apply appropriate methods to solve differential equations; these methods will include, but are not limited to, undetermined coefficients, variation of parameters, eigenvalues and eigenvectors, LaPlace and inverse LaPlace transforms.

4. Select and apply series techniques to solve differential equations; these techniques will include but are not limited to Taylor series.

5. Select and apply numerical analysis techniques to solve differential equations; these techniques will include but are not limited to Euler, Improved Euler, and Runge-Kutta.

6. Demonstrate proficiency in using CAS technology to analyze, solve and interpret the various applications. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.*

## ***Mechanical***

### **MEC 111                      Machine Processes I**

1                      4                      3

Prerequisites: None

Corequisites: None

This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to safely manufacture simple parts to specified tolerances.

### **MEC 112                      Machine Processes II**

2                      3                      3

Prerequisites: MEC 111

Corequisites: None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts

**MEC 130 Mechanisms**  
2 3 3

Prerequisites: None

Corequisites: None

**This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.**

**MEC 141 Intro Mfg Processes**  
2 2 3

Prerequisites: None

Corequisites: None

This course covers the properties and characteristics of manufacturing materials and the processes used to form them. Emphasis is placed on manufacturing materials, heat-treating processes, and manufacturing processes. Upon completion, students should be able to identify physical characteristics of materials and describe processes used to manufacture a part.

**MEC 142 Physical Metallurgy**  
1 2 2

Prerequisites: None

Corequisites: None

This course covers the heat treating of metals. Emphasis is placed on the effects of hardening, tempering, and annealing on the structure and physical properties of metals. Upon completion, students should be able to heat treat materials.

## *Medical*

**MED 120 Survey of Med Terminology**  
2 0 2

Prerequisites: None

Corequisites: None

This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

**MED 121 Medical Terminology I**  
3 0 3

Prerequisites: None

Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. (\*VLC)

**MED 122 Medical Terminology II**  
3 0 3

Prerequisites: MED 121

Corequisites: None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. (\*VLC)

## *Marketing and Retailing*

**MKT 120 Principles of Marketing**  
3 0 3

Prerequisites: None

Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making. (\*VLC) Competencies

Student Learning Outcomes

1. Define the role of marketing in business.

2. Explain the role of selling, customer relations and product management in marketing.

3. Describe marketing.

4. Define pricing and channel management strategies.

**MKT 121 Retailing**  
3 0 3

Prerequisites: None

Corequisites: None

This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

**MKT 122 Visual Merchandising**  
3 0 3

Prerequisites: None

Corequisites: None

This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

**MKT 123 Fundamentals of Selling**

3 0 3

Prerequisites: None

Corequisites: None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered. (\*VLC)

Competencies

Student Learning Outcomes

1. Identify appropriate sales techniques for various selling situations.
2. Describe sales techniques.
3. Explain the necessity of selling skills in modern business environment.

**MKT 220 Advertising and Sales Promotion**

3 0 3

Prerequisites: None

Corequisites: None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application. (\*VLC)

**MKT 224 International Marketing**

3 0 3

Prerequisites: None

Corequisites: None

This course covers the basic concepts of international marketing activity and theory. Topics include product promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

**MKT 225 Marketing Research**

3 0 3

Prerequisites: MKT 120

Corequisites: None

This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program. (\*VLC)*

Competencies

Student Learning Outcomes

1. Design and conduct a marketing research project.
2. Interpret results of a marketing research project.

3. Apply marketing research as a tool in decision making.

4. Define procedures for developing, analyzing, and using data.

**MKT 227 Marketing Applications**

3 0 3

Prerequisites: None

Corequisites: None

This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy. *This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.*

Competencies

Student Learning Outcomes

1. Formulate marketing strategy.
2. Apply diverse marketing strategies case studies and small-group projects.
3. Define diverse marketing strategies.

**Maintenance****MNT 110 Intro to Maint Procedures**

1 3 2

Prerequisites: None

Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

Competencies

Student Learning Outcomes

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Identify and demonstrate use of hand tools.
3. Identify grades of bolts and fasteners and demonstrate proper tightening techniques
4. Describe the operation of and assemble mechanical power transmissions and systems.
5. Identify bearings, seals, gaskets, and packing material and demonstrate appropriate assembly techniques.
6. Perform preventative and predictive maintenance and mechanical troubleshooting.

**MNT 111 Maintenance Practices**

2 2 3

Prerequisites: None

Corequisites: None

This course provides in-depth theory and practical applications relating to predictive and preventive

maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods. **(\*VLC)**

## Music

### MUS 110 Music Appreciation

3 0 3

Prerequisites: None

Corequisites: None

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

### MUS 112 Introduction to Jazz

3 0 3

Prerequisite: None

Corequisites: None

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.*

### MUS 210 History of Rock Music

3 0 3

Prerequisite: None

Corequisites: None

This course is a survey of Rock music from the early 1950's to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras.

## Nurse Aide

### NAS 101 Nurse Aide I

3 4 3 6

Prerequisites: DRE 96

Corequisites: None

This course includes basic nursing skills required to provide safe, competent personal care for individuals.

Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry. *This is a certificate-level course.*

### NAS 102 Nurse Aide II

3 2 6 6

Prerequisites: High school diploma or GED and currently listed as NA I with State of North Carolina; DRE 96

Corequisites: None

This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide II Registry. *This is a certificate-level course.*

### NAS 103 Home Health Care Nurse Aide

2 0 0 2

Prerequisites: DRE 96 and NAS 101

Corequisites: None

This course provides advanced training for the currently listed Nurse Aide I enhancing specific skills needed when working in the home care setting. Topics include person-centered care, nutrition, hydration, patient and personal safety, mental health, dementia, behavioral challenges, pain management, palliative care, and stress management. Upon completion, students are eligible for listing as a home care nurse aide with the North Carolina Nurse Aide Registry. *This is a certificate-level course.*

### NAS 104 Home Health Clinical

0 0 3 1

Prerequisites: None

Corequisites: None

This course provides supervised experience in the home and/or simulated laboratory with emphasis on the application of basic nursing skills. Emphasis is placed on the transfer of knowledge and skills from institutional settings to home environments. Upon completion, students should be able to safely and efficiently provide delegated basic care to clients in the home. *This is a certificate-level course.*



## Networking Technology

### NET 110      **Networking Concepts**

2    2    3

Prerequisites: None

Corequisites: None

This course introduces students to the networking field. Topics include network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols. *This course is also available through the Virtual Learning Community (VLC).*

### NET 125      **Networking Basics**

1    4    3

Prerequisites: None

Corequisites: None

This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

### NET 126      **Routing Basics**

1    4    3

Prerequisites: NET 125

Corequisites: None

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

### NET 225      **Routing & Switching I**

1    4    3

Prerequisites: NET 126

Corequisites: None

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

### NET 226      **Routing & Switching II**

1    4    3

Prerequisites: NET 225

Corequisites: None

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

### NET 240      **Network Design**

3    0    3

Prerequisites: NET 110 or NET 125

Corequisites: None

This course covers the principles of the design of LANs and WANs. Topics include network architecture, transmission systems, traffic management, bandwidth requirements, Internet working devices, redundancy, and broad-band versus base-band systems. Upon completion, students should be able to design a network to meet specified business and technical requirements.

### NET 260      **Internet Dev & Support**

3    0    3

Prerequisites: NET 110 or NET 125

Corequisites: None

This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization.

## Network Operating Systems

### NOS 110      **Operating System Concepts**

2    3    3

Prerequisites: None

Corequisites: None

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

### NOS 120      **Linux/UNIX Single User**

2    2    3

Prerequisites: NOS 110

Corequisites: None

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

#### **NOS 130 Windows Single User**

2 2 3

Prerequisites: NOS 110

Corequisites: None

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

#### **NOS 230 Windows Admin I**

2 2 3

Prerequisites: None

Corequisites: None

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

## **Nursing**

#### **NUR 101 Practical Nursing I**

7 6 6 11

Prerequisites: Admission to the P.N.E. Program

Corequisites: BIO 163, NUT 110, CIS 113

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

#### **NUR 102 Practical Nursing II**

7 0 9 10

Prerequisites: NUR 101, BIO 163, NUT 110

Corequisites: ENG 111, PSY 150

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the

nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

#### **NUR 103 Practical Nursing III**

6 0 9 9

Prerequisites: NUR 102

Corequisites: None

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. *This is a diploma-level course.*

#### **NUR 111 Intro to Health Concepts**

4 6 6 8

Prerequisites: None

Corequisites: None

This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

#### **NUR 112 Health Illness Concepts**

3 0 6 5

Prerequisites: NUR 111

Corequisites: None

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

#### **NUR 113 Family Health Concepts**

3 0 6 5

Prerequisites: NUR 111

Corequisites: None

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.



**NUR 114 Holistic Health Concepts**

3 0 6 5

Prerequisites: NUR 111

Corequisites: None

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 211 Health Care Concepts**

3 0 6 5

Prerequisites: NUR 111

Corequisites: None

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 212 Health System Concepts**

3 0 6 5

Prerequisites: NUR 111

Corequisites: None

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

**NUR 213 Complex Health Concepts**

4 3 15 10

Prerequisites: NUR 111, NUR 112, NUR 113, NUR 114, NUR 211, and NUR 212

Corequisites: None

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

**NUR 214 Nursing Transition Concepts**

3 0 3 4

Prerequisites: None

Corequisites: None

This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

***Nutrition*****NUT 110 Nutrition**

3 0 0 3

Prerequisites: None

Corequisites: None

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with nutrition. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well-being. (\*VLC)

***Operations Management*****OMT 112 Materials Management**

3 0 3

Prerequisites: None

Corequisites: None

This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

Competencies

Student Learning Outcomes

1. Identify appropriate strategies for procurement of materials.
2. Describe appropriate strategies for movement of materials.
3. Describe appropriate strategies for storage of materials.
4. Describe materials management planning.

**OMT 143 Just-In-Time**

2 0 2

Prerequisites: None

Corequisites: None

This course is a study of the quality philosophy and Just-in-Time techniques designed to improve the ability to economically respond to change. Topics include production to demand with perfect quality, no unnecessary lead times, elimination of waste, developing productivity of people, and the quest for continuous improvement. Upon completion, students should be able to demonstrate an understanding of Just-in-Time methods and be prepared for the APICS CPIM examination.

### **OMT 260      Issues in Operations Mgt.**

3    0    3

Prerequisites:    ISC 121, ISC 210, OMT 112, and ISC 130, ISC 131, ISC 132, or ISC 221

Corequisites:    None

This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

Competencies

Student Learning Outcomes

1. Identify contemporary problems and issues related to operations management.
2. Apply production and operations planning principles.
3. Identify environmental health and safety issues in operations management.
4. Discuss issues related to materials management.

## ***Office Systems Technology***

### **OST 080      Keyboarding Literacy**

1    2    2

Prerequisites:    None

Corequisites:    None

This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.

### **OST 122      Office Computations**

1    2    2

Prerequisites:    None

Corequisites:    None

This course introduces the keypad and the touch method using the electronic calculator. Topics include mathematical functions in business applications. Upon completion, students should be able to use the electronic calculator to solve a wide variety of problems commonly encountered in business.

### **OST 131      Keyboarding**

1    2    2

Prerequisites:    None

Corequisites:    None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

### **OST 134      Text Entry & Formatting**

2    2    3

Prerequisites:    OST 131 or test out

Corequisites:    None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents and key timed writings at speeds commensurate with employability. *This course is also available through the Virtual Learning Community (VLC).*

### **OST 135      Adv Text Entry & Format**

3    2    4

Prerequisites:    OST 131, OST 134

Corequisites:    None

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on the production of letters, manuscripts, business forms, tabulation, legal documents, and newsletters. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

### **OST 136      Word Processing**

2    2    3

Prerequisites:    None

Corequisites:    None

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment. **(\*VLC)**

### **OST 164      Text Editing Applications**

3    0    3

Prerequisites:    none

Corequisites:    None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text. **(\*VLC)**

### **OST 184      Records Management**

2    2    3

Prerequisites:    None

Corequisites:    None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system. (\*VLC)

### **OST 223      Admin. Office Transcription I**

2    2    3

Prerequisites: OST 164; and OST 134 or OST 136

Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

### **OST 236      Adv Word/Inform. Processing**

2    2    3

Prerequisites: OST 135 or OST 136

Corequisites: None

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents. *This course is also available through the Virtual Learning Community (VLC).*

### **OST 241      Med Ofc Transcription I**

1    2    2

Prerequisite: Either MED 1221 or OST 141

Corequisites: None

This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties.

### **OST 242      Med Ofc Transcription II**

1    2    2

Prerequisite: OST 241

Corequisites: None

This course continues building transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription and text editing, efficient use of reference materials, increasing transcription speed and accuracy, and improving understanding of medical terminology. Upon completion, students should be able to display competency in accurately transcribing medical documents.

### **OST 244      Med. Document Production**

1    2    2

Prerequisites: OST 134

Corequisites: None

This course provides production-level skill development in processing medical documents. Emphasis is placed on producing mailable documents through the use of medical-related materials. Upon completion, students should be able to perform competently in preparing accurate, correctly formatted, and usable documents.

### **OST 247      Procedure Coding**

1    2    2

Prerequisites: MED 121 or OST 141

Corequisites: None

This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.

### **OST 248      Diagnostic Coding**

1    2    2

Prerequisites: MED 121 or OST 141

Corequisites: None

This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.

### **OST 286      Professional Development**

3    0    3

Prerequisites: None

Corequisites: None

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

### **OST 289      Office Systems Management**

2    2    3

Prerequisites: OST 164 and either OST 134 or OST 136

Corequisites: None

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

## ***Process Control Instrumentation***

### **PCI 264    Process Control with PLC's**

3    3    4

Prerequisites: None

Corequisites: None

This course introduces automatic process control implemented with PLC technology. Topics include interfacing and controlling advanced control loops and devices using various PLC-based systems. Upon completion, students should be able to demonstrate an understanding of advanced applications of process control and instrumentation systems with PLC-based devices.

## ***Professional Crafts: Wood***

### **PCW 132 Composite Materials Construction**

1 3 2

Prerequisites: None

Corequisites: None

This course covers the design and methods of using composite materials in woodworking. Topics include the use of composite materials such as plywood, m.d.f., particle board, and plastic laminate and their design and construction methods. Upon completion, students should be able to demonstrate a series of technical exercises and designs and make an object utilizing composite materials. *This class is designed for inmates at Marion Correctional Facility and may not be taken by individuals outside the prison system.*

## ***Physical Education***

### **PED 110 Fit and Well for Life**

1 2 2

Prerequisites: None

Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 111 Physical Fitness**

0 3 1

Prerequisites: None

Corequisites: None

This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 113 Aerobics I**

0 3 1

Prerequisites: None

Corequisites: None

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 117 Weight Training I**

0 3 1

Prerequisites: None

Corequisites: None

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 120 Walking For Fitness**

0 3 1

Prerequisites: None

Corequisites: None

This course introduces fitness through walking. Emphasis is placed on stretching, conditioning exercises, proper clothing, fluid needs, and injury prevention. Upon completion, students should be able to participate in a recreational walking program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 128 Golf-Beginning**

0 2 1

Prerequisites: None

Corequisites: None

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

### **PED 130 Tennis-Beginning**

0 2 1

Prerequisites: None

Corequisites: None

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to

play recreational tennis. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**PED 139      Bowling-Beginning**

0    2    1

Prerequisites: None

Corequisites: None

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**PED 152      Swimming-Beginning**

0    2    1

Prerequisites: None

Corequisites: None

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**PED 155      Water Aerobics**

0    3    1

Prerequisites: None

Corequisites: None

This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

## Philosophy

**PHI 210      History of Philosophy**

3    0    3

Prerequisites: ENG 111

Corequisites: None

This course introduces fundamental philosophical issues through an historical perspective. Emphasis is placed on such figures as Plato, Aristotle, Lao-Tzu, Confucius, Augustine, Aquinas, Descartes, Locke, Kant, Wollstonecraft, Nietzsche, and Sartre. Upon completion, students should be able to identify and distinguish among the key positions of the philosophers studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

**PHI 215      Philosophical Issues**

3    0    3

Prerequisites: ENG 111

Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.

Competencies

1. Engage in critical thinking.
2. Identify, reconstruct, and evaluate philosophical arguments.

3. Analyze key philosophical concepts within epistemology, metaphysics, and ethics.

4. Demonstrate an understanding of major philosophical views, and how they relate to contemporary issues.. *This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.*

Competencies

1. Engage in critical thinking about moral issues.
2. Identify, reconstruct and evaluate ethical arguments.
3. Analyze key ethical concepts.
4. Demonstrate understanding of major views in moral philosophy and how they relate to contemporary ethical and social issues.

**PHI 240      Introduction to Ethics**

3    0    3

Prerequisites: ENG 111

Corequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. (\*VLC)*

Competencies

1. Engage in critical thinking about moral issues.
2. Identify, reconstruct and evaluate ethical arguments.
3. Analyze key ethical concepts.
4. Demonstrate understanding of major views in moral philosophy and how they relate to contemporary ethical and social issues.

## Photography

**PHO 110      Fund of Photography**

3    6    5

Prerequisites: None

Corequisites: None

This course covers the basic technical aspects of photography, including camera controls, light and optics, flash, exposure, and processing. Emphasis is placed on principles of camera design and the relationship between subject and photographic image, with hands-on experience. Upon completion, students should be able to consistently produce technically excellent images.

**PHO 113 History of Photography**  
3 0 3

Prerequisites: None  
Corequisites: None

This course introduces the history of photography from its inception through contemporary times. Emphasis is placed on technical and aesthetical developments in artistic and commercial photography. Upon completion, students should be able to identify significant photographers and procedures, trace the development of the medium, and discuss current trends in photography.

**PHO 115 Basic Studio Lighting**  
2 6 4

Prerequisites: PHO 110  
Corequisites: None

This course covers the basic principles of studio lighting. Topics include basic lighting techniques and application of lighting ratios to product illustration/portraiture using tungsten/electronic strobe sources, with emphasis on equipment maintenance and safety. Upon completion, students should be able to select and set up the best lights and lighting applications for a wide variety of photographic subjects.

**PHO 120 Intermediate Photography**  
2 4 4

Prerequisites: PHO 110  
Corequisites: None

This course expands the coverage of photographic materials and provides an opportunity to experiment. Emphasis is placed on additional techniques and processes, including solarization, multiple-imaging, infrared toning, and other non-traditional uses of photography. Upon completion, students should be able to demonstrate how the choice of technique enhances the photographic subject and influences content.

**PHO 132 Small-Format Photography**  
2 6 4

Prerequisite: PHO 110  
Corequisites: None

This course introduces small-format cameras and their application in location portraiture, industrial photography, photojournalism, and multimedia photography and portable lighting equipment and techniques. Topics include rapid camera operation, location photography, exposure techniques, portable flash, process modification, filtration, and simple multimedia production. Upon completion, students should be able to produce professional quality images under a variety of adverse shooting conditions using the equipment and techniques studied.

**PHO 139 Intro to Digital Imaging**  
1 3 2

Prerequisites: None  
Corequisites: None

This course introduces the conversion of photographs into digital images by exploring the effect hardware and software have on the reproduction process. Topics include basic imaging tools and vocabulary, calibration, density, contrast, and color. Upon completion, students should be able to demonstrate a basic understanding of the digital imaging process and be able to capture and output images.

**PHO 140 Digital Photo Imaging I**  
2 4 4

Prerequisites: PHO 110  
Corequisites: None

This course introduces digital photo imaging exploring the use of hardware/software, image capture, input/output devices, ethics, and imaging aesthetics. Emphasis is placed on basic imaging tools and vocabulary of current digital imaging software, including selection tools, color correction, cloning, copy/paste, and filters. Upon completion, students should be able to capture images with a digital camera or scanner, manipulate and retouch the image, and select final image output.

**PHO 150 Portfolio Development I**  
3 3 4

Prerequisites: PHO 120 or PHO 130  
Corequisites: None

This course provides an opportunity to develop a thematically related portfolio of photographic images that are consistent in print quality. Emphasis is placed on subject/content development, choice of materials, and archival processing controls; organizing and sequencing images; editing; print finishing; and portfolio presentation. Upon completion, students should be able to edit and exhibit a consistent body of photographic prints in a portfolio presentation.

**PHO 180 Creative Problem Solving**  
1 4 3

Prerequisites: PHO 110  
Corequisites: None

This course encourages the development of innovative photographic solutions to instructor-assigned tasks. Emphasis is placed on identifying components necessary to complete the task and applying creative solutions. Upon completion, students should be able to solve problems in a variety of photographic areas, combining media where needed to achieve the desired results.

**PHO 216 Documentary Photography**  
2 4 4

Prerequisites: PHO 110  
Corequisites: None

This course introduces the practical, historical, and contemporary applications of documentary photography. Emphasis is placed on understanding the various approaches to creating a photographic documentary and how a documentary project can affect society. Upon completion, students should be able to produce a documentary project on a topic of interest to them.

**PHO 217 Photojournalism I**

1 6 4

Prerequisites: PHO 110

Corequisites: None

This course covers logistics and techniques used in current professional newspaper photography. Topics include detailed study of spot and general news, sports, and feature photography along with basic newspaper layout, advanced photographic techniques, and legal issues. Upon completion, students should be able to demonstrate an understanding of basic aspects of news, sports, and feature photography.

**PHO 224 Multimedia Production**

2 3 3

Prerequisite: PHO 110

Corequisites: None

This course covers various aspects of computer based multimedia production. Topics include sound recording and editing techniques and software, multimedia software, control of image and continuity and pacing, script writing, copyright laws and ethics. Upon completion, students should be able to use computer hardware and software for multimedia production.

**PHO 226 Portraiture**

3 3 4

Prerequisites: PHO 115

Corequisites: None

This course covers the techniques of contemporary studio and location portraiture. Topics include lighting techniques, lighting ratios, available light to multiple light setups, posing techniques, and styles of glamour, fashion, corporate, and public relations portraiture. Upon completion, students should be able to choose the appropriate lighting, accessories, and posing style to produce a successful portrait.

**PHO 235 Commercial Photography**

2 4 4

Prerequisites: PHO 115

Corequisites: None

This course covers the techniques of advertising photography used in the print media. Emphasis is placed on the conception, lighting, and creation of photographic illustration used for food, fashion, and product photography. Upon completion, students should be able to produce advertising photographs for professional photographic illustration.

## Physics

*Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that college's placement test.*

**PHY 110 Conceptual Physics**

3 0 3

Prerequisites: None

Corequisites: None

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

**PHY 110A Conceptual Physics Lab**

0 2 1

Prerequisites: None

Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

**PHY 131 Physics-Mechanics**

3 2 4

Prerequisites: MAT 121 or 171

Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 151 College Physics I**

3 2 4

Prerequisites: MAT 171

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum,



fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

**PHY 152 College Physics II**

3 2 4

Prerequisites: PHY 151

Corequisites: None

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

**PHY 251 General Physics I**

3 3 4

Prerequisites: MAT 271

Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

**PHY 252 General Physics II**

3 3 4

Prerequisites: MAT 272 and PHY 251

Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *College Transfer: This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.*

## Plumbing

**PLU 111**

**Intro to Basic Plumbing**

1 3 2

Prerequisites: None

Corequisites: None

This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of a basic plumbing system.

## Political Science

**POL 120**

**American Government**

3 0 3

Prerequisites: None

Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

**POL 130**

**State & Local Government**

3 0 3

Prerequisites: None

Corequisites: None

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

**POL 210 Comparative Government**

3 0 3

Prerequisites: None

Corequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and



compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## Psychology

### PSY 118 Interpersonal Psychology

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

### PSY 150 General Psychology

3 0 3

Prerequisites: None

Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

### PSY 239 Psychology of Personality

3 0 3

Prerequisites: PSY 150

Corequisites: None

This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

### PSY 241 Developmental Psych

3 0 3

Prerequisites: PSY 150

Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception

to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

### PSY 244 Child Development I

3 0 3

Prerequisites: None

Corequisites: None

This course provides an introduction to the study of child development and examines the growth and development of children from conception through early childhood. Topics include historical and theoretical perspectives, terminology, research and observation techniques as well as physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of the early stages of child development.

### PSY 245 Child Development II

3 0 3

Prerequisites: None

Corequisites: None

This course examines the growth and development of children during early and middle childhood. Emphasis is placed on factors influencing physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of early and middle child development.

### PSY 281 Abnormal Psychology

3 0 3

Prerequisites: PSY 150

Corequisites: None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## Reading

*Initial student placement in developmental courses is based on individual college placement testing policies and procedures. Students should begin developmental course work at the appropriate level indicated by that college's placement test.*

### RED 090 Improved College Reading

3 2 4

Prerequisites: RED 080 or ENG 085

Corequisites: None

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. *This course satisfies the developmental reading prerequisite for ENG 111 or ENG 111A.*

### RED 091 Fast Track Imprv Coll Rdg

1 0 1

Prerequisites: RED 080 or ENG 085

Corequisites: None

This course provides an intensive review of selected RED 090-level reading strategies. Topics include the following reading strategies at the RED 090 level: critical thinking, major question types, main idea, patterns of organization, vocabulary, and inference. Upon completion, students should be able to apply selected RED 090 reading strategies to various texts.

## Refrigeration

### REF 116 Commercial Systems I

2 6 4

Prerequisites: AHR 115

Corequisites: None

This course introduces and compares various commercial refrigeration systems. Topics include service, repair, and diagnostic procedures for commercial systems and components, as well as evacuation, charging, startup, and evaluation. Upon completion, students should be able to use appropriate tools, instruments, and procedures to service and install basic refrigeration systems or components.

### REF 117 Refrigeration Controls

2 6 4

Prerequisites: AHR 111 or ELC 111

Corequisites: None

**This course covers the design, operation, function, and schematics of basic control systems used in the refrigeration industry. Topics include proper control application, selection, and use of test instruments; simple control wiring; and the use of schematics as a troubleshooting tool. Upon completion, students should be able to identify, diagnose, and repair electrical and mechanical malfunctioning components.**

### REF 123 Electrical Devices

2 6 4

Prerequisites: AHR 111 or ELC 111

Corequisites: None

This course introduces the electrical and electronic components and test instruments commonly found in commercial refrigeration. Emphasis is

placed on troubleshooting electrical and electronic devices, including motors, starting devices, switches, transformers, programmable controls, defrost controls, thermostats, and wiring systems. Upon completion, students should be able to use test equipment appropriately and safely to troubleshoot, test, and repair electrical devices.

## Religion

### REL 110 World Religions

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

### REL 211 Intro to Old Testament

3 0 3

Prerequisites: None

Corequisites: None

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

### REL 212 Intro to New Testament

3 0 3

Prerequisites: None

Corequisites: None

This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## Information Systems Security

### SEC 110 Security Concepts

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

## Sociology

### SOC 210 Introduction to Sociology

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

### SOC 213 Sociology of the Family

3 0 3

Prerequisites: None

Corequisites: None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences. (\*VLC)*

### SOC 220 Social Problems

3 0 3

Prerequisites: None

Corequisites: None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

### SOC 242

### Sociology of Deviance

3 0 3

Prerequisites: None

Corequisites: None

This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance. *This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.*

## Spanish

### SPA 110

### Introduction to Spanish

2 0 2

Prerequisites: None

Corequisites: None

This course provides an introduction to understanding, speaking, reading, and writing Spanish. Emphasis is placed on pronunciation, parts of speech, communicative phrases, culture, and skills for language acquisition. Upon completion, students should be able to identify and apply basic grammar concepts, display cultural awareness, and communicate in simple phrases in Spanish.

### SPA 111

### Elementary Spanish I

3 0 3

Prerequisites: None

Corequisites: None

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

### SPA 112

### Elementary Spanish II

3 0 3

Prerequisites: SPA 111

Corequisites: None

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend

and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

### SPA 211 Intermediate Spanish I

3 0 3

Prerequisites: SPA 112

Corequisites: None

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

### SPA 212 Intermediate Spanish II

3 0 3

Prerequisites: SPA 211

Corequisites: None

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine/Arts.*

## Surgical Technology

### SUR 110 Intro to Surg Tech

3 0 0 3

Prerequisites: Admission to the Surgical Technology Program

Corequisites: SUR 111

This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.

### SUR 111 Periop Patient Care

5 6 0 7

Prerequisites: Admission to the Surgical Technology Program

Corequisites: SUR 110

This course provides the surgical technology student the theoretical knowledge required to function in the

pre-operative, intra-operative, and post-operative role. Topics include asepsis, disinfection and sterilization, physical environment, instrumentation, equipment, peri-operative patient care, and peri-operative case management. Upon completion, students should be able to apply the principles and practice of the peri-operative team member to the operative environment.

### SUR 122 Surgical Procedures I

5 3 0 6

Prerequisites: SUR 110 and SUR 111

Corequisites: SUR 123 or STP 101

This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to in the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

### SUR 123 SUR Clinical Practice I

0 0 21 7

Prerequisites: SUR 110 and SUR 111

Corequisites: SUR 122

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.

### SUR 134 Surgical Procedures II

5 0 0 5

Prerequisites: SUR 123 or STP 101

Corequisites: None

This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

### SUR 135 SUR Clinical Practice II

0 0 12 4

Prerequisites: SUR 123

Corequisites: SUR 134 and SUR 137

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.

**SUR 137 Prof Success Prep**

1 0 0 1

Prerequisites: SUR 123

Corequisites: SUR 134 and SUR 135

This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.

## *Transportation*

**TRN 170 PC Skills for Transp**

1 2 2

Prerequisite: None

Corequisites: None

This course introduces students to personal computer literacy and Internet literacy with an emphasis on the transportation service industry. Topics include service information systems, management systems, computer-based systems, and PC-based diagnostic equipment. Upon completion, students should be able to access information pertaining to transportation technology and perform word processing.

**Competencies**

- 1. Given a transportation vehicle or equipment, identify it and locate relevant service information from one or more industry-standard databases.
- 2. Given a transportation vehicle or equipment, analyze and diagnose transportation on board diagnostic management systems using handheld and/or PC based diagnostic equipment.
- 3. Describe and perform basic PC skills used by transportation technicians.
- 4. Demonstrate the proper use of application software such as MS Word.

**TRN 180 Basic Welding for Transp**

1 4 3

Prerequisite: None

Corequisites: None

This course covers the terms and procedures for welding various metals used in the transportation industry

with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standard

**Competencies**

**Student Learning Outcomes**

- 1. Describe and list the proper fundamentals, processes and equipment, materials and metallurgy associated with welding of similar and dissimilar metals in transportation systems and equipment.
- 2. Identify and describe safety and health practices associated with the welding of similar and dissimilar metals in transportation systems and equipment.
- 3. In a lab setting, demonstrate the ability to successfully weld similar and dissimilar metals in transportation systems and equipment.
- 4. Select and list the proper inspection methods associated with the welding of similar and dissimilar metals in transportation systems and equipment.
- 5. In a lab setting, demonstrate proper setup and operational procedures associated with the welding of similar and dissimilar metals in transportation systems and equipment.
- 6. Describe and list the cutting techniques used with the various tools and methods associated with transportation systems and equipment.

## *Web Technologies*

**WEB 110 Internet/Web Fundamentals**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.

**WEB 111 Intro to Web Graphics**

2 2 3

Prerequisites: None

Corequisites: None

This course introduces the creation of web graphics, and addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, optimization, RGB color, web typography, elementary special effects, transparency, animation, slicing, basic photo manipulation, and other related topics. Upon completion, students should be able to create graphics, such as animated banners, buttons,

backgrounds, logos, and manipulate photographic images for Web delivery.

**WEB 115      Web Markup and Scripting**

2   2   3

Prerequisites: None

Corequisites: None

This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards.

**WEB 120      Intro Internet Multimedia**

2   2   3

Prerequisites: None

Corequisites: None

This is the first of two courses covering the creation of internet multimedia. Topics include internet multimedia file types, file type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create internet multimedia presentations utilizing a variety of methods and applications.

**WEB 140      Web Development Tools**

2   2   3

Prerequisites: None

Corequisites: None

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

**WEB 179      JAVA Web Programming**

2   3   3

Prerequisite: None

Corequisites: None

This course introduces the development of dynamic, database-driven web applications using the JAVA programming languages. Topics include Object Oriented Programming JAVA Server Pages, servlets, database interactions, and form handling. Upon completion, students should be able to create and modify JAVA-based internet applications.

**WEB 182      PHP Programming**

2   2   3

Prerequisite: CIS 115

Corequisites: None

This course introduces students to the server-side, HTML-embedded scripting language PHP.

Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.

**WEB 210      Web Design**

2   2   3

Prerequisites: None

Corequisites: None

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites. (\*VLC)

**WEB 225      Content Management Sys**

2   2   3

Prerequisite: WEB 110

Corequisites: None

This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website.

**WEB 230      Implementing Web Serv**

2   2   3

Prerequisites: NET 110 or NET 125

Corequisites: None

This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards. (\*VLC)

**WEB 250      Database Driven Websites**

2   2   3

Prerequisites: DBA 110

Corequisites: WEB 140

This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according

to industry standards.

### WEB 287 Web E-Portfolio

1 2 2

Prerequisites: None

Corequisites: None

This course covers the creation and organization of a web-based e-portfolio that includes a resume, references, and comprehensive academic and work samples. Emphasis is placed on creating an e-portfolio with solid design and demonstrable content, the production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to present their own domain with included professional e-portfolio elements of resume, sample work, and related self-promotional materials.

## Welding

### WLD 110 Cutting Processes

1 3 2

Prerequisite: None

Corequisites: None

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

#### Competencies

#### Student Learning Outcomes

- 1. Identify the parts and functions of an oxy-acetylene cutting torch.
- 2. Identify the parts and functions of various cutting equipment.
- 3. List the safety practices of using oxy-fuel, plasma-arc, and other cutting equipment.
- 4. Set-up and adjust cutting equipment.
- 5. Use an oxy-acetylene outfit, plasma cutting equipment, and other equipment to: a. Cut a straight marked line on various thickness steel plate. b. Cut various shapes out of carbon steel plate. c. Cut carbon steel plate to a bevel and pipe.

### WLD 112 Basic Welding Processes

1 3 2

Prerequisites: None

Corequisites: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes. Students will be given the opportunity to construct metal

sculpture, or jewelry and other art metal objects using basic welding processes.

### WLD 115 SMAW (Stick) Plate

2 9 5

Prerequisite: None

Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

#### Competencies

#### Student Learning Outcomes

- 1. Demonstrate SMAW electrode classification in compliance with AWS codes.
- 2. Perform a groove weld according to AWS D1.1.
- 3. Demonstrate safe and proper SMAW equipment setup, operation, and shut-down practices in accordance to manufacturer's recommendations.

### WLD 116 SMAW (Stick) Plate/Pipe

1 9 4

Prerequisites: WLD 115

Corequisites: None

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

### WLD 121 GMAW (MIG) FCAW/Plate

2 6 4

Prerequisite: None

Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

#### Competencies

#### Student Learning Outcomes

- 1. Demonstrate the use of GMAW electrode classification in compliance with AWS code for the selection of electrodes.
- 2. Demonstrate the use of FCAW electrode classification in compliance with AWS code for the selection of electrodes.
- 3. Perform a Fillet weld in accordance with AWS code.
- 4. Perform a groove weld in accordance with AWS code.
- 5. Demonstrate safe and proper GMAW equipment setup, operation, and shut-down practices in accordance to manufacturer's recommendations.



**WLD 131 GTAW (TIG) Plate**

2 6 4

Prerequisite: None

Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

**Competencies****•Student Learning Outcomes**

- 1.Demonstrate the use of GTAW electrode classification in compliance with AWS for the selection of electrodes.
- 2.Perform a groove weld in accordance with AWS code.
- 3.Perform a Fillet weld in accordance with AWS code.
- 4.Demonstrate safe equipment setup, operation, and shut-down practices according to manufacturer's recommendations.

**WLD 141 Symbols & Specifications**

2 2 3

Prerequisite: None

Corequisites: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

**Competencies****•Student Learning Outcomes**

- 1.Identify and read welding symbols.
- 2.Identify and explain various lines, notes, and specifications on a blueprint.
- 3.Identify the different types of lines on a blueprint.
- 4.Interpret destructive testing symbols and their methods.
- 5.Interpret non-destructive testing symbols and their methods.
- 6.Develop a working sketch.
- 7.Create a bill of materials from a blueprint.

**WLD 151 Fabrication I**

2 6 4

Prerequisites: None

Corequisites: None

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

**WLD 261 Certification Practices**

1 3 2

Prerequisites: WLD 115, WLD 121, and WLD 131

Corequisites: None

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes. Students will be given an opportunity to qualify for at least one of our MTCC welder certifications.

**Work-Based Learning****WBL 111 Work-Based Learning I**

0 10 1

Prerequisite: None

Corequisites: None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**WBL 112 Work-Based Learning I**

0 20 1

Prerequisite: None

Corequisites: None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**WBL 113 Work-Based Learning I**

0 30 1

Prerequisite: None

Corequisites: None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**WBL 121 Work-Based Learning II**

0 10 1

Prerequisite: None

Corequisites: None



This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**WBL 211                      Work-Based Learning IV**  
0      10      1

Prerequisite:            None  
Corequisites:           None

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

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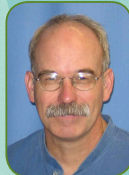
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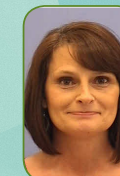
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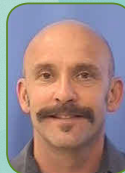
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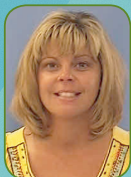


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