

## Biotechnology Laboratory Technician

PROGRAM REQUIREMENTS	Credit Hours
GENERAL EDUCATION .....	23
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
ENGL 1223 Technical Writing .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1513 College Algebra .....	3
SCIENCE	
BISI 1114 General Biology (or)	
BISI 1214 Environmental Science .....	4
CHEM 1314 General Chemistry I.....	4
TECHNICAL-OCCUPATIONAL SPECIALTY CORE REQUIREMENTS .....	34
The following technical-occupational specialty courses are required to complete this degree program.	
BIOT 1103 Introduction to Biotechnology .....	3
BIOT 1003 Laboratory Safety & Regulatory Compliance.....	3
BIOT 1034 Fundamentals of Biotechnology I .....	4
BIOT 1044 Fundamentals of Biotechnology II .....	4
BIOT 1014 Standard Laboratory Techniques I.....	4
BIOT 1024 Standard Laboratory Techniques II .....	4
BIOT 1054 Fundamentals of Biotechnology Techniques I.....	4
BIOT 1064 Fundamentals of Biotechnology Techniques II.....	4
BIOT 1074 Fundamentals of Biotechnology Techniques III .....	4
SUPPORT AND RELATED COURSES.....	7-14
Select courses applicable to area of study from the following electives in consultation with each student's graduation adviser.	
BIOT 1115 Agricultural and Pharmaceutical Biotechnology I and .....	5
BIOT 1215 Agricultural and Pharmaceutical Biotechnology II .....	5
BIOT 1114 Introduction to Forensics I and .....	4
BIOT 1214 Introduction to Forensics II and.....	4
BIOT 1124 Introduction to Forensic Laboratory Techniques .....	4
BIOT 1125 Microbial Biotechnology I and.....	5
BIOT 1224 Microbial Biotechnology II and.....	4
BIOT 1225 Wastewater & Environmental Testing Techniques.....	5
BIOT 1135 Introduction to Phlebotomy and.....	5
BIOT 1234 Phlebotomy Techniques and .....	4
BIOT 1223 Phlebotomy Practicum.....	3
BIOT 1243 Medical Biotechnology Techniques I and.....	3
BIOT 1253 Medical Biotechnology Techniques II and.....	3
BIOT 1260 Biotechnology Laboratory Sciences Practicum .....	1-3
TOTAL CREDIT HOURS .....	64-71

This AAS degree program is designed for students who are interested in exploring the field of biotechnology and how it relates to medicine, research, and industry. This program covers a broad curriculum that will expose the student to the wide variety of job opportunities available in the field.

This Biotechnology program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Meridian Technology Center in Stillwater, OK.

### Career Opportunities

Biological technicians

Medical and clinical laboratory technicians

Chemical technician

Environmental science and protection technicians, including health

Geological and petroleum technician

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Electronics Technology

**PROGRAM REQUIREMENTS**

	Credit Hours
GENERAL EDUCATION .....	21
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
ENGL 1223 Technical Writing .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 Am. History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS - (Autry Technology Center)	
MATH 1104 Technical Math (Applied Algebra/Trigonometry) .....	4
MATH 2373 Technical Math – (Applied Calculus).....	3
SCIENCE - (Autry Technology Center)	
PHYS 2812 General Applied Physics .....	2
TECHNICAL OCCUPATIONAL SPECIALITY .....	29
CS 1002 Beginning C Programming.....	2
CS 2532 Assembly Programming .....	2
ET 1103 Fundamentals of Electricity & Electronics .....	3
ET 1113 Electronic Devices & Amplifiers .....	3
ET 1123 Electrical Motor Controls .....	3
ET 1162 Electronic CADD .....	2
ET 1223 Electronic Amplifiers .....	3
ET 1243 Circuit Analysis I (Digital Electronics I) .....	3
ET 1311 Precision Measurements & Measuring Devices .....	1
ET 2243 Operational Amplifiers Techniques .....	3
ET 2373 Digital Logic Analysis.....	3
ET 2731 Electronic Construction & Design .....	1
INDUSTRIAL FOCUS .....	12
ET 1252 Pneumatic Controls .....	2
ET 2002 Hydraulic Systems.....	2
ET 2202 Mechanical Systems.....	2
ET 2513 Process Instrumentation and Control .....	3
ET 2853 Programmable Logic Controllers .....	3
MICROCOMPUTER FOCUS .....	12
CS 1102 Advanced C Programming.....	2
ET 2812 Microcomputer Servicing .....	2
ET 2813 Microcomputer Application System .....	3
ET 2822 Microcomputer Networks .....	2
ET 2823 Microcomputer Troubleshooting and Repair .....	3
<b>TOTAL CREDIT HOURS .....</b>	<b>62</b>

The Electronics Technology degree is specifically designed to prepare students for a career as a general electronics technician. Students will learn basic concepts and skills for the repair and maintenance of commonly used electronics equipment and will receive quality training with state-of-the-art simulators.

This Electronics Technology degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.

**Career Opportunities**

- Computer Repair Technician
- Consumer Repair Technician
- Electronics Technician
- General Electronic Technician
- Industrial Maintenance Technician

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Electronics Technology - Electrical Engineering Technician

PROGRAM REQUIREMENTS	Credit Hours	
GENERAL EDUCATION .....	22	<p>The Electronics Technology: Electrical Engineering Technician Option degree provides a broad-based program that is specifically designed to prepare students with the knowledge, technical skills, and job-related experiences necessary to make a significant contribution to industries such as The Charles Machine Works Inc. – Ditch Witch, ConocoPhillips, Mercury MerCruiser, OGE Energy Corporation, Smith International, and Tinker Air Force Base. This degree can lead to internships and employment with the participation partners.</p> <p>This Electronics Technology degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.</p> <p><b>Career Opportunities</b></p> <ul style="list-style-type: none"> <li>Civil Engineer</li> <li>Construction Electrician</li> <li>Electrical Contractor</li> <li>Electrical Engineering Technician</li> <li>Maintenance Electrician</li> </ul> <p>NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:</p> <ul style="list-style-type: none"> <li>• MATH 0003 Pre-Algebra</li> <li>• MATH 0023 Concepts of Algebra</li> <li>• MATH 0123 Intermediate Algebra</li> <li>• ENGL 0123 Basic Composition</li> <li>• READ 0123 Basic Reading</li> <li>• READ 1113 College Reading</li> <li>• BSCI 0123 Intro to Basic Science</li> </ul>
COMMUNICATIONS		
ENGL 1113 English Composition I .....	3	
ENGL 1213 English Composition II (or)		
SPCH 1713 Intro to Oral Communications (or)		
ENGL 1223 Technical Writing .....	3	
HISTORY AND GOVERNMENT		
HIST 1483 American History to 1865 (or)		
HIST 1493 Am. History Since 1865 .....	3	
POLI 1113 American Government .....	3	
MATHEMATICS		
MATH 1513 College Algebra .....	3	
SCIENCE		
CHEM 1114 Concepts in Chemistry (or)		
PHYS 2104 Concepts in Physics (or)		
PHYS 1114 General Physics I .....	4	
GENERAL EDUCATION ELECTIVE		
ECON 2123 Microeconomic Principles. (or)		
BSAD 1103 Intro. to Business .....	3	
PROGRAM REQUIREMENTS (NOC).....	7	
PTEC 1313 Safety, Health & Work Practice .....	3	
PTEC 2243 Principles of Quality.....	3	
ET 2460 Internship in Electronics Technology .....	1	
PROGRAM REQUIREMENTS (Autry Technology Center).....	7	
APPLIED MATHEMATICS		
MATH 1104 Technical Math Applied Algebra/Trigonometry .....	4	
MATH 2373 Technical Math Applied Calculus .....	3	
TECHNICAL OCCUPATIONAL SPECIALTY .....	31	
CS 1002 Beginning C Programming .....	2	
CS 2532 Assembly Programming .....	2	
ET 1103 Fundamentals of Electricity & Electronics .....	3	
ET 1113 Electronic Devices & Amplifiers .....	3	
ET 1123 Electrical Motor Controls .....	3	
ET 1162 Electronic CADD .....	2	
ET 1223 Electronic Amplifiers.....	3	
ET 1243 Circuit Analysis I (Digital Electronics I) .....	3	
ET 1252 Pneumatic Systems .....	2	
ET 1311 Precision Measurements & Measuring Devices .....	1	
ET 2243 Operational Amplifiers Techniques .....	3	
ET 2373 Digital Logic Analysis .....	3	
ET 2731 Electronic Construction & Design .....	1	
TOTAL CREDIT HOURS .....	67	

## Engineering Technology – Drafting and Design Option

**PROGRAM REQUIREMENTS**

	Credit Hours
GENERAL EDUCATION .....	28
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
SPCH 1713 Intro to Oral Comm (or)	
ENGL 1223 Technical Writing .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 Am. History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1513 College Algebra .....	3
MATH 1613 Plane Trigonometry .....	3
SCIENCE	
PHYS 1114 General Physics I .....	4
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	3
Select courses from: Language Arts, Natural Sciences, Foreign Languages, Fine Arts, Humanities, Mathematics, Behavioral or Social Sciences	
TECHNICAL OCCUPATIONAL SPECIALTY .....	32
DRFT 1103 Introduction to Drafting .....	3
DRFT 1113 Introduction to Auto CADD .....	3
DRFT 1143 Technical Drafting I .....	3
DRFT 1152 Technical Drafting II .....	3
DRFT 1204 Machine Drafting .....	3
DRFT 2212 Technical Illustration .....	2
DRFT 2223 Architectural Drafting I .....	3
DRFT 2243 Architectural Drafting II .....	3
DRFT 2333 3D Modeling .....	2
DRFT 2433 Animation .....	1
DRFT 2453 CAD Practicum .....	3
DRFT 2463 CAD Internship .....	3
 TOTAL CREDIT HOURS .....	 60

The Drafting and Design program is designed to prepare individuals for placement in computer-aided drafting and pre-engineering fields or a college engineering or architectural program. Courses emphasize business, industry, and labor guidelines for successful entry-level skills and preparation for occupational certification in Computer-Aided Drafting Design (CAD). Emphasis is placed on both the theoretical and the practical approach to drafting. Also included is training in the area of animation where the student's ideas come to life.

This Drafting and Design degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK and Meridian Technology Center in Stillwater, OK.

- Career Opportunities**
- Architectural Drafter
  - Basic Drafter
  - Civil Drafter
  - Computer Aided Drafter
  - Electronic Drafter
  - Mechanical Drafter
  - Structural Drafter
  - Technical Illustrator

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Health Services Technology

## PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	33
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
SPCH 1713 Introduction to Oral Communication .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra .....	3
SCIENCE	
BISI 1114 General Biology .....	4
BISI 2214 Human Anatomy and Physiology (or)	
BISI 2104 Human Anatomy (or)	
BISI 2204 Human Physiology .....	4
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	7
Select courses from: General Psychology, Principles of Sociology, Microbiology, and General Chemistry I.	
TECHNICAL OCCUPATIONAL SPECIALTY* .....	7
HLST 1012 Medical Math .....	2
HLST 1111 Medical Aspects .....	1
HLST 1112 Medical Terminology .....	2
HLST 1211 Medical Ethics .....	1
HLST 1311 CPR/FA/AED .....	1
RECOMMENDED ELECTIVES* .....	20
HLST 1410 Clinicals I .....	1-4
HLST 1420 Clinicals II .....	1-4
HLST 1430 Clinicals III .....	1-4
HLST 1510 Direct Care I .....	1-5
HLST 1520 Direct Care II .....	1-5
HLST 1610 Therapeutic Care I .....	1-6
HLST 1620 Therapeutic Care II .....	1-6
HLST 1630 Therapeutic Care III .....	1-6
HLST 1710 Medical Assisting I .....	1-6
HLST 1720 Medical Assisting II .....	1-6
*General Education courses may be selected in lieu of the Technical Occupational Specialty and Recommended Elective courses, (e.g., General Psychology, Principles of Sociology, Microbiology, and General Chemistry I).	
TOTAL CREDIT HOURS .....	60

The Health Services program is designed to enable the student to work professionally as a vital member of the health care team. The course sequence is for students whose goal is to be in allied health care in one of three career pathways: Direct Care, Therapeutic Care or Medical Office Assistant/ Health Information.

This Health Services degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Atry-Enid, Chisholm Trail-Omega, High Plains-Woodward, Meridian-Stillwater, Northwest-Alva/Fairview, and Pioneer-Ponca City, OK.

### Career Opportunities

Allied Health Cardio  
Pulmonary  
Allied Health Clinic and Lab  
Allied Health Direct Care  
Allied Health Medical Office  
Assistant  
Allied Health Therapeutic  
Care  
Animal Care

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- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Health Services Technology - Dental Assistant Option

## PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	33
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
SPCH 1713 Introduction to Oral Communication .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865.....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra (or) equivalent .....	3
SCIENCE	
BISI 1114 General Biology .....	4
BISI 2214 Human Anatomy and Physiology (or)	
BISI 2104 Human Anatomy (or)	
BISI 2204 Human Physiology .....	4
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	7
Select courses from General Psychology, Principles of Sociology, Ethics for the Workplace, Business Ethics, Microbiology, and General Chemistry I.	
TECHNICAL OCCUPATIONAL SPECIALTY* .....	7
HLST 1012 Medical Math .....	2
HLST 1111 Medical Aspects .....	1
HLST 1112 Medical Terminology .....	2
HLST 1211 Medical Ethics .....	1
HLST 1311 CPR/FA/AED .....	1
RECOMMENDED ELECTIVES* .....	20
HLST 1236 Introduction to Dental Assistant .....	6
HLST 1246 Dental Office, Procedures and Instruments .....	6
HLST 1256 Dental Assistant Administrative and Clinical Procedures .....	6
HLST 2260 Dental Assistant Internship .....	1-6
HLST 2262 Dental Assistant Practicum .....	2
*General Education courses may be selected in lieu of the Technical Occupational Specialty and Recommended Elective courses, (e.g., General Psychology, Principles of Sociology, Ethics for the Workplace, Business Ethics, Microbiology, and General Chemistry I).	
TOTAL CREDIT HOURS .....	60

The Health Services: Dental Assistant program is designed to enable the student to work professionally as a vital member of the health care team. Students will study dental law and ethics and the duties of the dental office receptionist, dental secretary and bookkeeper. Students will study head and neck anatomy and physiology along with dental procedures, radiography, radiation safety, infection control, dental examinations, dental materials and alginate impressions.

This Health Services Technology degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.

### Career Opportunities

- Dental Assistant
- Dental Receptionist
- Dental Secretary

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Industrial Technology - Mechanical Technology Option

**PROGRAM REQUIREMENTS**

	Credit Hours
GENERAL EDUCATION .....	28
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
ENGL 1223 Technical Writing (or)	
SPCH 1713 Introduction to Oral Communications .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra.....	3
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	10
Select courses from:	
BSAD 1103 Introduction to Business	
ESCI 1214 Earth Science	
HUMN 2123 Development of Science through History	
PHSC 1114 General Physical Science (Other courses may be used	
to meet the Physical Science requirement)	
PHYS 2104 Concepts in Physics	
TECHNICAL OCCUPATIONAL SPECIALTY * (Provided at NOC) .....	14-18
PTEC 1124 Process Troubleshooting .....	4
PTEC 1313 Safety, Health and Work Practices .....	3
PTEC 2014 Process Technology I-Equipment .....	4
PTEC 2243 Principles of Quality .....	3
PTEC 2301 Industrial Observations.....	1
ITMT 2124 Mechanical Troubleshooting Technology .....	4
ITMT 2324 Mechanical Operations (Suggested prerequisite ITMT 1111) .....	4
ITMT 2460 Internship in Industrial Technology: Mechanical Technology .....	0-4
TECHNICAL OCCUPATIONAL INDUSTRIAL SPECIALTY * (Provided at Career Tech).....	16
ITMT 1111 Introduction to Print Reading .....	1
ITMT 1213 Introduction to Welding.....	3
ITMT 1311 Introduction to Metallurgy .....	1
ITMT 1414 Introduction to Mechanical Equipment .....	4
ITMT 1512 Introduction to Machining (Suggested prerequisites ITMT 1111 & ITMT 1414) ....	2
ITMT 2123 Introduction to Hydraulics .....	3
ITMT 2222 Introduction to Electricity and Electronics .....	2
ELECTIVE COURSES .....	0-4
Industry-specific elective courses and/or work certificates may be utilized for this degree that contain any of the following technical specific content areas: Codes and Standards, Confined Space Entry/Standby, Drafting, Engine Lathes, Furnaces, Gas Testing/Personal Monitors, Hand Tools, Heat Exchangers and Coolers, Instrumentation/Electrical, Insulation Fabrication, Pipefitting, Reactors, Refinery Safety, Reliability Issues, Management Procedures, Rigging, Scaffolding, Towers and Drums, Tube Reading, and others upon graduation adviser's approval.	
General Education courses may also be utilized for elective course credit.	
*Completion of these two content areas will lead to the Certificate in Industrial Technology: Mechanical Technology	
TOTAL CREDIT HOURS .....	60

The Industrial Technology: Mechanical Technology Option degree provides a broad based program that is specifically designed to prepare students with the knowledge, technical skills, and job-related experiences necessary to make a significant contribution to the field of study applicable to industries such as The Charles Machine Works, Inc.-Ditch Witch; ConocoPhillips, Inc.; Mercury MerCruiser; and/or OGE Energy Corporation (OG&E). This degree program can lead to internships and employment with the participating partners.

This ITMT degree program is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Atry-Enid, Meridian-Stillwater, and Pioneer-Ponca City.

**Career Opportunities**

- Computer Systems/ Field Service Technician
- Electronic Sales Representative
- General Electronics Technician
- Industrial Electronics Instrumentation Technician
- Mechanical Technician

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Information Technology - Interactive Media Option**

PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	18
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
ENGL 1223 Technical Writing (or)	
BSAD 2113 Business Communications (or)	
SPCH 1713 Introduction to Oral Communication .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications(or)	
MATH 1513 College Algebra.....	3
TECHNICAL CORE .....	27-33
ITEC 1213 Introduction to Multimedia .....	3
ITEC 1523 Digital Imaging I .....	3
ITEC 1533 Digital Video I .....	3
ITEC 1543 Graphic Design I .....	3
ITEC 2213 Employability Skills (strongly recommended) .....	3
ITEC 2523 Digital Imaging II .....	3
ITEC 2533 Digital Video II .....	3
ITEC 2543 Graphics Design II .....	3
ITEC 2553 Multimedia Project .....	3
ITEC 2563 Digital Imaging III .....	3
ITEC 2573 Modeling and Animation .....	3
ITEC 2583 Industry Issues .....	3
TECHNICAL SUPPORT COURSES .....	9-15
ITEC 1403 Multimedia Authoring I .....	3
ITEC 1423 Multimedia Authoring II .....	3
ITEC 1433 Multimedia Authoring III.....	3
ITEC 1443 Web Authoring I.....	3
ITEC 2443 Multimedia Portfolio .....	3
TOTAL CREDIT HOURS .....	60

The Interactive Media degree option prepares students for positions in the growing field of multimedia and digital communications. Students will receive instruction in the areas of core business and information technology skills before selecting from the following career pathways for specialized instruction in Digital Media/Multimedia: Multimedia Specialist/Developer, Multimedia Authoring Specialist, Streaming Media Specialist, Animator, or 2D/3D Artist.

The Business Division is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). Outstanding business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

This Information Technology degree program is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Northwest Technology Centers at Alva, OK.

Career Opportunities

- 2D/3D Artist
- Animator
- Graphic Designer
- Multimedia Specialist
- Site Developer
- Streaming Media Specialist
- Web Graphics and Multimedia
- Web Programmer

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Information Technology - Network Engineering Option**

	Credit Hours
<b>PROGRAM REQUIREMENTS</b>	
<b>GENERAL EDUCATION</b> .....	18
<b>COMMUNICATIONS</b>	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
ENGL 1223 Technical Writing (or)	
BSAD 2113 Business Communications (or)	
SPCH 1713 Introduction to Oral Communication .....	3
<b>HISTORY AND GOVERNMENT</b>	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
<b>MATHEMATICS</b>	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra .....	3
Students must select <u>two</u> Areas of Emphasis Tracks below. Students must also receive additional hours from Occupational Electives or from other emphasis areas to total 42 hours. Students must have their plan-of-study approved by their Instructors or Division Chair.	
<b>SYSTEMS SUPPORT EMPHASIS</b> .....	12
ITEC 1113 PC Technician I-Hardware .....	3
ITEC 1123 PC Technician II-Operating Systems .....	3
ITEC 2106 Information Technology Essentials .....	6
<b>NETWORK ADMINISTRATION EMPHASIS</b> .....	24
ITEC 1136 Network Administration .....	6
ITEC 1146 Network Operating Systems .....	6
ITEC 2156 Server Implementation and Support .....	6
ITEC 2166 Network Management .....	6
<b>NETWORK ENGINEERING EMPHASIS</b> .....	24
ITEC 2116 Networking Fundamentals .....	6
ITEC 2126 Router Theory and Configuration .....	6
ITEC 2136 Advanced Routing and Switching Design .....	6
ITEC 2146 Advanced Network Design and Management .....	6
<b>NETWORK SECURITY EMPHASIS</b> .....	30
ITEC 2176 Principles of Information Assurance .....	6
ITEC 2186 Network Security .....	6
ITEC 2196 Enterprise Security Management .....	6
ITEC 2266 Secure Electronic Commerce .....	6
ITEC 2276 Digital Forensics .....	6
<b>OCCUPATIONAL ELECTIVES</b> .....	6-27
ITEC 1223 Network Security Awareness .....	3
ITEC 1233 Internet Security .....	3
ITEC 1253 Voice, Video and Data Integration .....	3-6
ITEC 2213 Employability Skills (strongly recommended) .....	3
ITEC 2216 Networking Projects/Electives .....	1-6
ITEC 2236 Advanced Routing .....	6
ITEC 2240 Special Projects .....	1-6
ITEC 2246 Remote Access .....	6
ITEC 2256 Multilayer Switching .....	6
ITEC 2556 Network Troubleshooting .....	6
ITEC 2783 Wireless Technologies .....	3
TCOM 1644 DC/AC Circuit Analysis .....	4
TCOM 2116 Voice and Data Cabling .....	6
TCOM 2440 Special Projects .....	1-6
<b>TOTAL CREDIT HOURS</b> .....	<b>60</b>

The Network Engineering degree option prepares students for several career areas within the growing field of Information Technology. Students will specialize in two of the emphasis areas of their choosing. Students must also receive additional hours from Occupational Elective or from other emphasis areas. Students must have their plan-of-study approved by their Instructors or Division Chair.

The Business Division is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). Outstanding business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

This Network Engineering degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Autory-Enid, Chisholm Trail-Omega, High Plains-Woodward, Meridian-Stillwater, Northwest-Alva/Fairview, and Pioneer-Ponca City.

- Career Opportunities**
- Network Administrator
  - Network Architect
  - Network Design
  - Network Security
  - Network Operation Engineer
  - PC Technician
  - Pre-Sales Network Engineer

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Information Technology - Web Development Option**

PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	18
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
ENGL 1223 Technical Writing (or)	
BSAD 2113 Business Communications (or)	
SPCH 1713 Introduction to Oral Communication .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra .....	3
TECHNICAL OCCUPATIONAL SPECIALITY* .....	24
Select courses from the following technical-occupational specialty area to total a minimum of 24 hours. Note: courses may be substituted from other emphasis track areas below. Other courses may be substituted with instructor and/or division chair permission.	
ITEC 1313 Web Design I .....	3
ITEC 1323 Web Graphics I .....	3
ITEC 1346 HTML and Internet Fundamentals .....	6
ITEC 1356 Interface Design, Architecture and Layout .....	6
ITEC 1413 Introduction to Object Oriented Programming .....	3
ITEC 1416 Introduction to Programming .....	6
ITEC 2106 Information Technology Essentials .....	6
ITEC 2213 Employability Skills (strongly recommended) .....	3
ITEC 2316 Web Design II .....	6
ITEC 2356 Web Projects/Electives .....	6
SELECT ONE EMPHASIS TRACK FROM BELOW:	
Students select courses from the following emphasis tracks to total a minimum of 18 hours. Note: courses may be substituted from other emphasis track areas or from the block of technical-occupational specialty courses. Other courses may be substituted with Instructor and/or Division Chair permission.	
SITE DESIGN FOCUS .....	18
ITEC 2226 Server Side Scripting .....	6
ITEC 2366 E-Commerce Concepts and Implementation .....	6
ITEC 2373 Server Networking and Security .....	3
ITEC 2386 Internet Programming .....	6
ITEC 2433 Application Design and Development .....	3
ITEC 2440 Website Management and Analysis .....	3-6
GRAPHICS/MEDIA DESIGN FOCUS .....	18
ITEC 2326 Web Graphics II .....	6
ITEC 2336 Web Animation .....	6
ITEC 2346 Imaging, Virtual Reality and Digital Video .....	6
PROGRAMMING FOCUS .....	18
ITEC 1513 Java Programming .....	3
ITEC 1616 Database Essentials .....	6
ITEC 1626 Relational Database Design .....	6
ITEC 1633 Database Projects .....	3
ITEC 2233 Data Modeling .....	3
ITEC 2303 Database Management .....	3
ITEC 2373 Server Networking and Security .....	3
ITEC 2376 Structured Query Language .....	6
ITEC 2386 Internet Programming .....	6
ITEC 2396 Web Applications Development .....	6
TOTAL CREDIT HOURS .....	60

The World Wide Web plays an increasingly important role in commerce and communication. Students completing the Web Design and Development Option are qualified to design, create, and maintain both the programmatic and creative aspects of corporate Web sites. Upon completing this program, they will have an understanding of Web authoring, digital media, user interface design, and programming of interactive web sites and electronic commerce applications.

The Business Division is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). Outstanding business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

This Web Development degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Chisholm Trail-Omega, Meridian-Stillwater, Northwest-Alva/Fairview, and Pioneer-Ponca City, OK.

Career Opportunities

- E-Commerce Manager
- Help Desk Support
- Web Content Engineer
- Web Designer
- Web Developer
- Webmaster
- Website Manager
- Web Merchandising Manager
- Web Security Administrator

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Nursing - Registered Nurse (RN)**

PROGRAM REQUIREMENTS

Credit Hours

GENERAL EDUCATION .....	31
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
ORIENTATION	
ORNT 1101 Freshman Orientation .....	1
SCIENCE (18 Credit Hours as follows)	
BISI 1114 General Biology (or)	
CHEM1314 General Chemistry .....	4
BISI 2104 Human Anatomy (or)	
BISI 2204 Human Physiology (or)	
BISI 2214 Human Anatomy and Physiology .....	4
BISI 2124 Microbiology .....	4
SOCIAL SCIENCES	
PSYC 1113 General Psychology .....	3
SOCI 1113 Principles of Sociology (or)	
SOCI2223 Social Problems .....	3
PROGRAM REQUIREMENTS .....	37
NURS 1114 Fundamentals of Nursing* .....	4
NURS 1124 Fundamentals Practicum* .....	4
NURS 1234 Nursing of Adults I* .....	4
NURS 1244 Nursing of Adults I Practicum* .....	4
NURS 2071 Seminar in Nursing I .....	1
NURS 2072 Seminar in Nursing II .....	2
NURS 2334 Maternal—Child Nursing .....	4
NURS 2344 Maternal—Child Nursing Practicum .....	4
NURS 2415 Nursing of Adults II .....	5
NURS 2425 Nursing of Adults II Practicum .....	5
TOTAL CREDIT HOURS .....	68

\*Students may receive credit from LPN program towards RN degree.

The Nursing: Registered Nurse cooperative program is designed to provide LPN graduates with the necessary skills to become a Registered Nurse.

Credit may be granted for the first and second nursing courses according to the following criteria:

- The applicant must hold a valid LPN license in good standing.
- The applicant must be a graduate of a program which is accredited by the National League for Nursing Accrediting Commission or test out of the required first year coursework.
- The applicant must complete at least 17 credits of general education courses before entry into the fall semester nursing course (NURS 2334). These credits must include the following with a minimum grade of C: PSYC 1113, BISI 1114, BISI 2214 and NURS 1253.
- The applicant must take the ACT test or provide a score from a previous exam.
- Applicants are admitted on a space available basis.

Career Opportunities

Registered Nurse (RN)

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

Office Management

PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	18
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or) BSAD 2113 Business Communications .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or) HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	3
Select courses from Fine Arts, Foreign Languages, Humanities, Language Arts, and Sciences.	
BUSINESS CORE REQUIREMENTS—NOC .....	18
ACCT 1113 Basic Business Records I*(or) ACCT 2103 Accounting I-Financial .....	3
ACCT 2103 Accounting I-Financial (or) ACCT 2203 Accounting II-Managerial (Prerequisite: Accounting I) .....	3
BSAD 1103 Introduction to Business .....	3
CS 2123 Business Technologies and Applications .....	3
ECON 2123 Microeconomic Principles (or) ECON 2113 Macroeconomic Principles .....	3
MATH 1513 College Algebra .....	3
TECHNICAL OCCUPATIONAL SPECIALTY REQUIREMENTS—Technology Centers .....	15
Other courses may be substituted with instructor and/or division chair permission.	
BMGT 1213 Spreadsheets .....	3
OFAD 2213 Office Procedures .....	3
OFAD 2243 Office Management .....	3
OFAD 2333 Beginning Word Processing .....	3
OFAD 2343 Advanced Word Processing .....	3
BUSINESS SUGGESTED ELECTIVES .....	9
Students select 9 hours from Business Suggested Electives or General Education courses: Offered by Northern Oklahoma College:	
ACCT 2123 Microcomputer Accounting I* .....	3
BMGT 2163 E-Commerce (or) BMGT2143 Marketing .....	3
BMGT 2233 Human Resource Management .....	3
BMGT 2240 Business Internship .....	3
BMGT 2263 Principles of Management .....	3
BMGT 2313 Business Law .....	3
ECON 2113 Macroeconomic Principles (or) ECON 2123 Microeconomic Principles .....	3
Offered by Technology Centers:	
ITEC 1213 Introduction to Multimedia .....	3
ITEC 1313 Web Design I .....	3
ITEC 1323 Web Graphics I .....	3
ITEC 2213 Employability Skills .....	3
ITEC 2316 Web Design II .....	6
ITEC 2336 Web Animation .....	6
OFAD 1103 Beginning Keyboarding and Formatting .....	3
OFAD 1113 Business Calculations .....	3
OFAD 2112 Records Management .....	2
OFAD 2113 Desktop Publishing .....	3
OFAD 2240 Internship .....	1-4
*Courses may be taken at NOC or the Technology Center.	
TOTAL CREDIT HOURS .....	60

The Office Management Program is designed to prepare students with the necessary skills for employment as office management personnel. The technical occupational specialty areas equip students with current technological skills while the business core requirements provide the essential foundation in business, accounting and office management.

The Business Division is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). Out-standing business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

The Office Management degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Austry-Enid, Chisholm Trail-Omega, High Plains-Woodward, Meridian-Stillwater, Northwest-Alva/Fairview, and Pioneer-Ponca City.

Career Opportunities

- Administrative Assistant
- Data Entry Clerk
- Mid-Level Manager
- Office Information Analyst
- Office Manager
- Payroll Clerk
- Receptionist
- Word Processing Operator

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Office Management - Medical Assistant Option**

PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	18
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
BSAD 2113 Business Communications .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	3
Select courses from Fine Arts, Foreign Languages, Humanities, Language Arts, and Sciences.	
BUSINESS REQUIREMENTS—NOC .....	18
ACCT 1113 Basic Business Records I* (or)	
ACCT 2103 Accounting I-Financial .....	3
ACCT 2103 Accounting I-Financial (or)	
ACCT 2203 Accounting II-Managerial (Prerequisite: Accounting I) .....	3
BSAD 1103 Introduction to Business .....	3
CS 2123 Business Technologies and Applications .....	3
ECON 2123 Microeconomic Principles (or)	
ECON 2113 Macroeconomic Principles .....	3
MATH 1513 College Algebra .....	3
TECHNICAL OCCUPATIONAL SPECIALTY REQUIREMENTS—Career and Technology Center... 14	
HLST 1112 Medical Terminology .....	2
HLST 1226 Personal and Professional Development .....	6
HLST 1311 CPR/FA/AED .....	1
OFAD 1405 Medical Fundamentals I .....	5
TECHNICAL OCCUPATIONAL SPECIALTY —Areas of Emphasis .....	10
Students may choose either one area of emphasis or a combination of both:	
Clinical (Back Office)	
OFAD 1415 Medical Fundamentals II .....	5
OFAD 2213 Office Procedures .....	3
Administrative (Front Office)	
BMGT 1213 Spreadsheets .....	3
OFAD 1131 Insurance and Billing .....	1
OFAD 1141 Medical Transcription .....	1
OFAD 1152 ICD9 Coding .....	2
OFAD 2213 Office Procedures .....	3
Internship (Back Office and/or Front Office)	
OFAD 2240 Internship .....	1-4
*Courses may be taken at NOC or the Career and Technology Center.	
TOTAL CREDIT HOURS .....	60

The Medical Assistant Program is designed to provide students with the necessary skills for either the clinical (back office) or administrative (front office) duties or a combination of both. Clinical responsibilities will be prescribed for each individual student and might include documenting of medical records, taking vital signs, performing EKG's and radiographics, performing infection control, knowledge of computer applications in the medical office; professional telephone techniques; outpatient, hospital visits, and office scheduling; verification of insurance coverage; obtaining insurance preauthorization, confidentiality, medical record filing, and retention; office policies and procedures; medical transcription; insurance concepts such as insurance preauthorization and coding for physician reimbursement; patient billing and collections; and accounts receivable and payable.

The Business Division is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). Outstanding business students are invited to join Kappa Beta Delta, the business honor society recognized by ACBSP.

This Office Management degree is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Autry-Enid, Chisholm Trail-Omega, High Plains-Woodward, Meridian-Stillwater, Northwest-Alva/Fairview, and Pioneer-Ponca City.

- Career Opportunities
- Medical Assistant
  - Medical Biller
  - Medical Coder
  - Medical Records
  - Medical Transcriptionist

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

**Printing Technology**

PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	20
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
ORIENTATION	
ORNT 1101 Freshman Orientation .....	1
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION ELECTIVES .....	4
Select courses from Fine Arts, Foreign Languages, Humanities, Mathematics, Language Arts, Natural Sciences, Psychology, or Social Sciences.	
PROGRAM REQUIREMENTS .....	30
GRAT 1113 Introduction to Graphic Arts .....	3
GRAT 1143 Copy, Prep, Design and Layout .....	3
GRAT 1223 Graphic Arts Camera I .....	3
GRAT 1233 Graphic Arts Camera II .....	3
GRAT 2243 Offset Presswork I .....	3
GRAT 2253 Offset Presswork II .....	3
GRAT 2270 Printing Production Practicum I .....	6
GRAT 2280 Printing Production Practicum II .....	6
GRAT 2450 Supervised Study in Graphic Arts .....	0-6
GRAT 2460 Internship in Graphic Arts .....	0-6
Substitutions may be made with prior approval.	
RECOMMENDED ELECTIVES .....	10
Any course offered may be used to meet this requirement with Instructor or Division Chair approval.	
TOTAL CREDIT HOURS .....	60

The Printing Technology curriculum prepares students to enter in the printing industry as qualified technicians as soon as they have graduated. The program provides a working knowledge of the basic skills and techniques used in the printing and graphic arts industries. Certified by the Graphic Arts Education Council and Printing Industries of America, this program allows the student to work on projects from the beginning point of an idea or sketch through the completion of a printed product in an actual print shop.

This Printing Technology degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.

Career Opportunities

- Bindery Technician
- Desktop Publisher
- Estimator
- Film Strip-up Technician
- Graphic Artist/Designer
- Offset Press Operator
- Platemaking Technician
- PrePress Technician
- Production Manager
- Quality Control

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Radiography

**PROGRAM REQUIREMENTS**

	Credit Hours
GENERAL EDUCATION .....	18
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II (or)	
ENGL 1223 Technical Writing (or)	
SPCH 1713 Introduction to Oral Communications .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1493 Math Applications (or)	
MATH 1513 College Algebra .....	3
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
TECHNICAL OCCUPATIONAL SPECIALTY.....	52
RADT 1005 Fundamentals of Radiologic Technology & Patient Care .....	5
RADT 1053 Principles of Radiographic Imaging I .....	3
RADT 1055 Positioning and Radiographic Evaluation I .....	5
RADT 1315 Clinical Applications I .....	5
RADT 1443 Medical Terminology .....	3
RADT 2105 Positioning & Radiographic Evaluation II .....	5
RADT 2113 Principles of Radiographic Imaging II .....	3
RADT 2115 Physics of X-ray Equipment .....	5
RADT 2123 Advanced Radiographic Evaluation & Pathology .....	3
RADT 2213 Principles of Radiographic Imaging III .....	3
RADT 2314 Radiation Protection/Radiation Biology .....	4
RADT 2315 Clinical Applications II .....	5
RADT 2313 Radiology Management/Professional Development .....	3
 TOTAL CREDIT HOURS .....	 70

The Radiographer is a vital member of the health care team, applying complex techniques to create radiographic images used to diagnose health disorders. The 24-month radiography curriculum is a combination of academic coursework and clinical rotations at area medical facilities that prepare graduates to work in a diverse clinical setting.

Upon completion of the educational requirements established by the American Registry of Radiologic Technologist (ARRT), graduates are eligible for the ARRT national certification exam.

This Radiography degree program is a cooperative program whereby students take their general education courses from Northern Oklahoma College and their technical coursework at the Technology Centers of Atry-Enid and Meridian-Stillwater, OK.

Students must complete the programmatic application process by June, 1<sup>st</sup> each year. Class size is limited.

Career Opportunities:  
Radiographer

- Employment Opportunities:
- Commercial Sales
  - Physicians' offices
  - Hospitals
  - Industry
  - Mobile Imaging Services
  - Public Health Agencies
  - Specialized Clinics
  - Research and Forensic Laboratories
  - Free Standing Imaging Centers

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science

## Respiratory Care

PROGRAM REQUIREMENTS	CREDIT HOURS	SUGGESTED COURSE SEQUENCE	CREDIT HOURS	
GENERAL EDUCATION .....	27	FIRST SEMESTER .....	19	<p>The Respiratory Care program is designed to enable the student to work professionally as a vital member of the health care team. A 24-month curriculum combining academic work, clinical rotations at area hospitals and physician contacts will provide students with the intensive preparation necessary for an exciting, rewarding career as a Respiratory Therapist.</p> <p>Upon successful completion, students will be eligible for the National Board of Respiratory Care (NBRC) exams, both the entry level exam for a Certified Respiratory Therapist (CRT) and the advanced exam for a Registered Respiratory Therapist (RRT).</p> <p>Students must complete an application packet with three reference letters and an interview. Usually only ten students are accepted per year. Health form immunizations will be required when the student is accepted.</p> <p>NOTE: It is recommended that students exhibit math proficiency at the College Algebra level before enrolling in this program.</p> <p>This Respiratory Care degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.</p> <p>NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:</p> <ul style="list-style-type: none"> <li>• MATH 0003 Pre-Algebra</li> <li>• MATH 0023 Concepts of Algebra</li> <li>• MATH 0123 Intermediate Algebra</li> <li>• ENGL 0123 Basic Composition</li> <li>• READ 0123 Basic Reading</li> <li>• READ 1113 College Reading</li> <li>• BSCI 0123 Intro to Basic Science</li> </ul>
COMMUNICATIONS		ENGL 1113 English Composition I .....	3	
ENGL 1113 English Composition I .....	3	MATH 1513 College Algebra .....	3	
ENGL 1213 English Composition II .....	3	BISI 114 General Biology .....	4	
HISTORY AND GOVERNMENT		RESP 1115 Intro to RT Procedures .....	5	
HIST 1483 American History to 1865 (or)		RESP 1253 Cardiopulmonary A&P .....	3	
HIST 1493 Am. History Since 1865 .....	3	RESP 1121 Clinical Applications I .....	1	
POLI 1113 American Government .....	3	SECOND SEMESTER .....	18	
MATHEMATICS		ENGL 1213 English Composition II .....	3	
MATH1513 College Algebra .....	3	BISI 2214 Human A&P .....	4	
SCIENCE		RESP 1133 Clinical Pharmacology .....	3	
BISI 1114 General Biology with Lab .....	4	RESP 1215 RT Procedures II .....	5	
CHEM 1314 General Chemistry .....	4	RESP 1223 Clinical Applications II .....	3	
BISI 2214 Human Anatomy & Physiology .....	4	THIRD SEMESTER (SUMMER) .....	10	
PROFESSIONAL CORE REQUIREMENTS .....	57	CHEM 1314 General Chemistry .....	4	
RESP 1115 Intro to RT Procedures .....	5	RESP 1244 Pulmonary Pathology .....	4	
RESP 1253 Cardiopulmonary Anatomy .....	3	RESP 1232 Clinical Applications III .....	2	
RESP 1121 Clinical Applications .....	1	FOURTH SEMESTER .....	17	
RESP 1133 Clinical Pharmacology .....	3	HIST 1483 American History to 1865 (or)		
RESP 1215 RT Procedures II .....	5	HIST 1493 American History Since 1865 .....	3	
RESP 1223 Clinical Applications II .....	3	RESP 2123 Adv. Clinical Applications .....	3	
RESP 1244 Pulmonary Pathology .....	4	RESP 2445 Mechanical Ventilation .....	5	
RESP 1232 Clinical Applications III .....	2	RESP 2423 Pulmonary Diagnosis & Rehab .....	3	
RESP 2123 Advanced Clinical Applica. ....	3	RESP 2513 Intro. to Critical Care .....	3	
RESP 2445 Mechanical Ventilation .....	5	FIFTH SEMESTER .....	14	
RESP 2423 Pulmonary Diagnosis&Rehab .....	3	POLI 1113 American National Gov. ....	3	
RESP 2513 Intro. To Critical Care .....	3	RESP 2555 Advanced Critical Care .....	5	
RESP 2555 Advanced Critical Care .....	5	RESP 2613 Pediatrics/Neonatal Resp.Care .....	3	
RESP 2613 Pediatrics/Neonatal Resp.Care ...	3	RESP 2223 Advanced Clinical Applications II .....	3	
RESP 2223 Adv. Clinical Applications II .....	3	SIXTH SEMESTER (SUMMER) .....	6	
RESP 2623 Board Exam Review .....	3	RESP 2623 Board Exam Review .....	3	
RESP 2233 Adv. Clinical Applications II .....	3	RESP 2233 Advanced Clinical Applications III .....	3	
TOTAL CREDIT HOURS .....	84			
*Computer proficiency is embedded within the coursework of this program.		This is a suggested sequence time line only. A student may require more than four semesters to complete an Associate in Applied Science degree.		

## Surgical Technology

## PROGRAM REQUIREMENTS

	Credit Hours
GENERAL EDUCATION .....	31
COMMUNICATIONS	
ENGL 1113 English Composition I .....	3
ENGL 1213 English Composition II .....	3
SPCH 1713 Introduction to Oral Communication .....	3
HISTORY AND GOVERNMENT	
HIST 1483 American History to 1865 (or)	
HIST 1493 American History Since 1865 .....	3
POLI 1113 American Government .....	3
MATHEMATICS	
MATH 1513 College Algebra .....	3
SCIENCE	
BISI 1114 General Biology .....	4
COMPUTER SCIENCE	
CS 1113 Computer Concepts .....	3
GENERAL EDUCATION	
PSYC 1113 General Psychology .....	3
SOCI 1113 Principles of Sociology .....	3
TECHNICAL OCCUPATIONAL SPECIALTY .....	37
SRGT 1102 Orientation to Surgical Technology .....	2
SRGT 1112 Introduction to Surgical Technology .....	2
SRGT 1212 Medical Terminology .....	2
SRGT 1221 Pharmacology .....	1
SRGT 1223 Basic Sciences for Surgical Technology I .....	3
SRGT 1327 Basic Sciences for Surgical Technology II .....	7
SRGT 1342 Clinical Applications I .....	2
SRGT 1411 Aseptic Technique .....	1
SRGT 1421 Patient Care .....	1
SRGT 1431 Supplies and Equipment .....	1
SRGT 2326 Surgical Procedures I .....	6
SRGT 2332 Clinical Applications II .....	2
SRGT 2435 Surgical Procedures II .....	5
SRGT 2442 Clinical Applications III .....	2
 TOTAL CREDIT HOURS .....	 68

The Surgical Technology program is designed to enable the student to work professionally as a vital member of the health care team. Academic work and clinical rotations will provide the student with the intensive preparation necessary for a rewarding career as a Surgical Technologist.

Upon successful completion, students will be eligible for the national certifying exam given by the Liaison Council on Certification for the Surgical Technologist (LCC-ST).

This Surgical Technology degree program is a cooperative program whereby students complete their general education courses at Northern Oklahoma College and their technical coursework at Autry Technology Center in Enid, OK.

### Career Opportunities

Surgical Technologist

### Positions Available In:

Doctors' Offices

Hospitals

Surgical Centers

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by ACT test scores or by COMPASS test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, some or all of the following seven (7) courses may need to be taken:

- MATH 0003 Pre-Algebra
- MATH 0023 Concepts of Algebra
- MATH 0123 Intermediate Algebra
- ENGL 0123 Basic Composition
- READ 0123 Basic Reading
- READ 1113 College Reading
- BSCI 0123 Intro to Basic Science