



REND LAKE  
COLLEGE

**2019-2020**

**CATALOG**

**ADDENDUM**



**NOTE CHANGE IN TOTAL CREDIT HOURS, NEW COURSE NAME FOR AGRI 1205 & CHANGES TO CURRICULUM – EFFECTIVE 6/1/2019**

## AGRICULTURAL MECHANICS

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

A two-year program leading to an Associate in Applied Science Degree. The program is designed to prepare students for occupations involving the maintenance and repair of implements such as tractors, combines and other farm machinery. Upon completion of the curriculum, the student should have a thorough knowledge of engine and equipment repair, servicing, sales and management. Also upon completion, the student has the option to capstone into a participating four-year institution. ► **Total = ~~72~~ 69 Hours**

	<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1205 <del>Assembling, Adjusting and</del> <del>Reconditioning Farm Equipment</del>	<del>5</del>
<input type="checkbox"/> AGRI 1205 <b>Assembly, Adjustment &amp; Maintenance or</b> <b>AGRI 1207 Machinery Reconditioning Restoration</b>	<b>5</b>
<input type="checkbox"/> AGRI 1208 Diesel Engines	6
<input type="checkbox"/> AGRI 1215 Small Engines <del>or</del>	3
<del>AGRI 1225 Intro to Agriculture Mechanization</del>	<del>3</del>
<input type="checkbox"/> ENGL 1101 Rhetoric and Composition I <sup>1</sup>	3
<input type="checkbox"/> HEA 1101 Health Education	
<del>HEA 1102 or Basic First Aid</del>	<del>2</del>
	<b><del>17</del> 17</b>

<b>Second Semester</b>	
<input type="checkbox"/> AGRI 1204 Physics of Hydraulics	<b>5 4</b>
<input type="checkbox"/> AGRI 1210 Supervised Occupational Experience	4
<input type="checkbox"/> AGRI 1221 Intro to Agricultural Occupations	1
<input type="checkbox"/> CSCI 1101 <b>Intro to Computers or</b> <b>CSCI 1102 Intro to Computers w/ Business Applications</b>	<b>3</b>
<input type="checkbox"/> COMM 1101 Principles of Effective Speaking <sup>1</sup>	3
<input type="checkbox"/> DIEL 1202 Basic Diesel Fuel Systems	<u>2</u>
	<b><del>15</del> 17</b>

<b>Third Semester</b>	
<input type="checkbox"/> AGRI 1203 Ignition and Electrical Systems	5
<input type="checkbox"/> AGRI 1222 Applied Mathematics <sup>1</sup> <del>or</del> <del>MATH Elective – Math<sup>+</sup></del>	<del>3</del>
<input type="checkbox"/> AGRI 1285 Agricultural Technologies	3
<input type="checkbox"/> AGRI 2201 Transmission and Power Trains	4
<input type="checkbox"/> DIEL 1204 Intermediate Diesels	<u>4</u>
	19

<b>Fourth Semester</b>	
<input type="checkbox"/> AGRI 1206 Ag Air Conditioning Systems	4
<input type="checkbox"/> AGRI 2204 Advanced Major Overhaul	5
<input type="checkbox"/> AGRI 2210 <b>Supervised Occupational Experience or</b> <b>AGRI 2206 Advanced Electrical &amp; Hydraulics</b>	<b>4</b>
<input type="checkbox"/> PSYC 2101 Introduction to Psychology <del>or</del>	<u>3</u>
<del>PSYC 2106 Human Relations</del>	<del>3</del>
	<b><del>16</del> 16</b>

<b>Fifth Term</b>	
<input type="checkbox"/> AGRI 2210 Supervised Occupational Experience	4

<b>RECOMMENDED COURSE:</b>	
<input type="checkbox"/> WELD 1270 Introduction to Welding Processes	4

<sup>1</sup> Prerequisite course(s) may be required based on test scores.

<sup>2</sup> See Division Chairperson for list of approved courses.

**NOTE CHANGE IN TOTAL CREDIT HOURS, ADDITION OF AGRI 1206 – EFFECTIVE 6/1/2019**

## AGRICULTURAL MECHANICS

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

► **Total = ~~27~~ 30 Hours**

<b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1203 Ignition and Electrical Systems		5
<input type="checkbox"/> AGRI 1208 Diesel Engines		6
<input type="checkbox"/> AGRI 2201 Transmission and Power Trains		<u>4</u>
		15

<b>Second Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1204 Physics of Hydraulics		<b>5 4</b>
<input type="checkbox"/> <b>AGRI 1206 Ag Air Conditioning Systems</b>		<b>4</b>
<input type="checkbox"/> AGRI 2204 Advanced Major Overhaul		5
<input type="checkbox"/> DIEL 1202 Basic Diesel Fuel Systems		<u>2</u>
		<b><del>15</del> 15</b>

<b>RECOMMENDED ELECTIVES</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1215 Small Engines		3
<input type="checkbox"/> AGRI 1285 Agriculture Technologies		3
<input type="checkbox"/> WELD 1270 Introduction to Welding Processes		4

## BUSINESS

### Associate in Applied Science Degree

#### APPLIED SCIENCE & TECHNOLOGY DIVISION

This two-year program leads to an Associate in Applied Science Degree in Business with specializations in finance or management. The curriculum is designed to provide students with a general background in all areas of business and to prepare them for careers in the fields of banking, accounting, management or marketing at the mid-management level in a variety of businesses and industries. The curriculum also provides those individuals already in positions in the local workforce the opportunity to upgrade job skills or advancement potential. ► **Total = 64 Hours**

<b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> BUSI 1101	Introduction to Business	3
<input type="checkbox"/> BUSI 2102	Customer Service <b>or</b>	
<input type="checkbox"/> OFTC 1234	Communication in Technical Services	3
<input type="checkbox"/> CSCI 1102	Intro to Computers w/ Business Applications	3
<input type="checkbox"/> ENGL 1101	Rhetoric and Composition I <sup>1</sup>	3
<input type="checkbox"/> <del>MATH 1202</del>	<del>Business Math <b>or</b></del>	
<del>    <input type="checkbox"/> MATH 1201</del>	<del>Technical Math <sup>1</sup></del>	<del>3</del>
<input type="checkbox"/> OFTC 1233	Office Accounting	<u>3</u>
		15
<b>Second Semester</b>		
<input type="checkbox"/> BUSI 2107	Business Communications	3
<input type="checkbox"/> BUSI 2207	Business Organization	3
<input type="checkbox"/> ECON 1101	Intro to Economics	3
<input type="checkbox"/> MATH 1202	Business Math <b>or</b>	
<input type="checkbox"/> MATH 1201	Technical Math <sup>1</sup>	3
<input type="checkbox"/> OFTC 1206	Computerized Accounting w/ QuickBooks	1
<input type="checkbox"/> OFTC 1233	Office Accounting	3
<input type="checkbox"/>	Elective – Core	<u>3</u>
		16
<b>Third Semester</b>		
<input type="checkbox"/> BUSI 2105	Legal / Social Environment of Business	3
<input type="checkbox"/> BUSI 2206	Business Dynamics	3
<input type="checkbox"/> MGMT 2201	Principles of Management	3
<input type="checkbox"/> MRKT 2201	Principles of Marketing	3
<input type="checkbox"/>	Elective – Core	3
<input type="checkbox"/>	Elective – Core	<u>3</u>
		18
<b>Fourth Semester</b>		
<input type="checkbox"/> BUSI 2203	Business Ethics <b>or</b>	
<input type="checkbox"/> PHIL 2104	Ethics	3
<input type="checkbox"/> CSCI 1263	Microsoft Excel	3
<input type="checkbox"/> <del>CSCI 1275</del>	<del>Microsoft PowerPoint</del>	<del>3</del>
<input type="checkbox"/> MGMT 2207	Supervision	3
<input type="checkbox"/>	Elective – Core	3
<input type="checkbox"/>	Elective – Core	<u>3</u>
		15

<sup>1</sup> Prerequisite course(s) may be required based test scores.

## CORE ELECTIVE SELECTION

The student must choose any combination of the courses listed below for a total of 15 credit hours to complete the 64 credit hours required for the Associate of Applied Science Degree.

### ACCOUNTING / FINANCIAL FOCUS

- ACCO 1101 – Principles of Financial Accounting (4)
- ACCO 1102 – Principles of Managerial Accounting (4)
- ACCO 1202 – Payroll Accounting (2)
- ACCO 2201 – Intermediate Accounting I (3)
- BUSI 1103 – Business Law I (3)
- COOP 1101 – Cooperative Education I (.5 – 4)
- COOP 2101 – Cooperative Education II (.5 – 4)
- ECON 2101 – Principles of Economics I (3)
- ECON 2102 – Principles of Economics II (3)
- MGMT 2207 – Supervision (3)
- MATH 1108 – College Algebra (3)
- MATH 1111 – Statistics (4)
- MATH 2115 – Business Calculus (4)

### MANAGEMENT / HUMAN RESOURCE FOCUS

- BUSI 1103 – Business Law I (3)
- BUSI 2101 – Business Law II (3)
- BUSI 2205 – E-Commerce (3)
- BUSI 2208 – Intercultural Business (3)
- BUSI 2209 – Inventory Management (3)
- COMM 1101 – Principles of Effective Speaking (3)
- COOP 1101 – Cooperative Education I (.5 -4)
- COOP 2101 – Cooperative Education (.5 – 4)
- MGMT 2201 – Principles of Management (3)
- MGMT 2207 – Supervision (3)
- PSYC 2101 – Introduction to Psychology (3)
- PSYC 2104 – Personality Dynamics (3)
- PSYC 2106 – Human Relations (3)
- SOCI 1101 – Introduction to Sociology (3)

### MARKETING FOCUS

- GRD 1201 – Intro to Graphic Design (3)
- GRD 1203 – Advertising Design (3)
- GRD 1215 – Web Page Design (3)
- GRD 2201 – Adobe Essentials (3)
- GRD / UAS Elective (3)

## **FACILITY MANAGEMENT**

### *Occupational Certificate*

This certificate is designed to prepare students for entry-level occupations involving the management of organizations' physical assets. Upon completion of the curriculum, students should have basic knowledge of building codes, building design and construction, mechanical and electrical systems operations, landscaping and grounds management and asset management. A wide variety of career opportunities exist for individuals to be employed in manufacturing plants, hospitals, high-rise buildings, educational institutions, and recreation centers, as well as hotels and motels. ► **Total = 33 Hours**

<b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/>	ARCH 1212 Architectural Construction Systems	3
<input type="checkbox"/>	ARCH 2215 Mechanical & Electrical Systems	3
<input type="checkbox"/>	ARCH 2226 Architectural Documents & Cost Estimating	3
<input type="checkbox"/>	FMGT 1201 Intro to Facility Management	3
<input type="checkbox"/>	IST 1221 Industrial Safety	2
<input type="checkbox"/>	MATH 1201 Technical Math	<u>3</u>
		17
<b>Second Semester</b>		
<input type="checkbox"/>	ARCH 1209 Architectural Building Tech	3
<input type="checkbox"/>	ARCH 2227 Architectural Building Codes	3
<input type="checkbox"/>	CSCI 1102 Intro to Computers w/ Business Applications	3
<input type="checkbox"/>	GFM 1201 Plan & Develop Green Facilities	4
<input type="checkbox"/>	HORT 1201 Intro to Horticulture	<u>3</u>
		16

**HEAVY EQUIPMENT TECHNOLOGY**

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

A two-year program leading to an Associate in Applied Science Degree. The program is designed to prepare students for occupations involving the maintenance and repair of heavy duty trucks and equipment. Upon completion of the curriculum, the student should have a thorough knowledge of engine and brake repair, servicing, sales and alignment. Also upon completion, the student has the option to capstone into a participating four-year institution. ► **Total = ~~70~~ 70 Hours**

<b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1208	Diesel Engines	6
<input type="checkbox"/> CSCI 1101	Intro to Computers	3
<input type="checkbox"/> DIEL 1208	Diesel Accessories	2
<input type="checkbox"/> ENGL 1101	Rhetoric and Composition I <sup>1</sup>	3
<input type="checkbox"/> HEQT 1201	Heavy Equipment Maintenance	<u>4</u>
		18

<b>Second Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1204	Physics of Hydraulics	<del>5</del> 4
<input type="checkbox"/> AGRI 1221	Intro to Agriculture Occupations	1
<input type="checkbox"/> COMM 1101	Principles of Effective Speaking	3
<input type="checkbox"/> DIEL 1205	Heavy Equipment Brakes	3
<input type="checkbox"/> HEQT 1208	Fundamentals of Machine Electronics	3
<input type="checkbox"/> HEQT 1211	Engine Fuel Systems	<u>3</u>
		<del>17</del> 17

<b>Third Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1222	Applied Mathematics <sup>1</sup> _____	
<del>MATH</del>	or Elective – Mathematics <sup>2</sup>	3
<input type="checkbox"/> AGRI 2201	Transmissions and Power Trains	4
<input type="checkbox"/> DIEL 1204	Intermediate Diesels	4
<input type="checkbox"/> HEQT 2203	Machine Systems Electronics	3
<input type="checkbox"/> PSYC 2101	Introduction to Psychology	
<del>PSYC 2106</del>	or Human Relations	<u>3</u>
		17

<b>Fourth Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 2204	Advanced Major Overhaul	5
<del>DIEL 1203</del>	<del>Heavy Equipment Alignment</del>	<del>4</del>
<input type="checkbox"/> HEQT 1209	Heating, Ventilation and A/C	2
<input type="checkbox"/> HEQT 1210	Supervised Occupational Experience	4
<input type="checkbox"/> <b>HEQT 2205</b>	<b>Undercarriage &amp; Final Drives</b>	3
<input type="checkbox"/> HEQT 2207	Machine Systems Diagnosis & Troubleshooting	<u>4</u>
		<del>18</del> 18

<sup>1</sup> Prerequisite course(s) may be required based test scores.  
<sup>2</sup> See Division Chairperson for list of approved courses.

**HEAVY EQUIPMENT TECHNOLOGY**

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

This certificate is designed to prepare students for entry-level occupations involving maintenance and repair of heavy duty trucks and equipment. Upon completion of the curriculum, the students should have basic knowledge of engine, brakes, servicing and undercarriage. ► **Total = 29 Hours**

<b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1208	Diesel Engines	6
<input type="checkbox"/> DIEL 1208	Diesel Accessories	2
<input type="checkbox"/> AGRI 2201	Transmissions and Power Trains	4
<input type="checkbox"/> HEQT 1201	Heavy Equipment Maintenance	<u>4</u>
		16

<b>Second Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> AGRI 1204	Physics of Hydraulics	4
<input type="checkbox"/> DIEL 1205	Heavy Equipment Brakes	3
<input type="checkbox"/> HEQT 1208	Fundamentals of Machine Electronics	3
<input type="checkbox"/> HEQT 1211	Engine Fuel Systems	<u>3</u>
		13

**IT SYSTEMS ASSISTANT**

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

**MICROSOFT USER CERTIFICATE**

This certificate program prepares students and professionals by concentrating on the Microsoft Office Suite, namely Word, Excel, PowerPoint, and Access. Topics covered in these courses help prepare the student for work using the various products as well as participation in the Microsoft Certified Application Specialist exams. Exams are not included in this program. ► **Total = ~~15~~ 16 Hours**

<b>First Semester (Fall)</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> <b>BUSI 1200</b>	<b>Job Strategy</b>	1
<input type="checkbox"/> CSCI 1243	Beginning Microsoft Word	3
<input type="checkbox"/> CSCI 1263	Microsoft Excel Spreadsheet	<u>3</u>
		<del>7</del> 7

<b>Second Semester (Spring)</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> <b>CSCI 1236</b>	<b>Integrating Technologies</b>	2
<input type="checkbox"/> CSCI 1255	Microsoft Access Database	3
<input type="checkbox"/> CSCI 1275	Microsoft PowerPoint	3
<del>CSCI 2245</del>	<del>Integrating Microsoft Applications</del>	<del>3</del>
<input type="checkbox"/> <b>SERV 1101</b>	<b>Service Learning</b>	<u>1</u>
		9

NOTE: Students must be able to type 25 words per minute.

## NURSING

Associate in Applied Science Degree

ALLIED HEALTH DIVISION

The Nursing program is designed to provide a career mobility path for individuals interested in health care. The curriculum is a concept-based method of instruction emphasizing critical thinking, problem solving, decision making, clinical reasoning and nursing judgment. Graduates will be prepared to practice professional nursing in a variety of health care settings.

Students must achieve a grade of “C” or better in each course, as well as demonstrate competency in dosage calculations and math skills. The Illinois Department of Financial and Professional Regulation approves this program. Upon graduation, the student is eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Students who prefer to test out at the practical nurse level may do so after completing the first two semesters of listed coursework and then completing NURS 1212 – Practical Nurse Role Development (4 credit hours). ► **Total = 64-65 Hours**

### PREREQUISITES

- |                                    |                                         |   |
|------------------------------------|-----------------------------------------|---|
| <input type="checkbox"/> CNA 1201  | Certified Nurse Assistant               | 7 |
| <input type="checkbox"/> ENGL 1101 | Rhetoric and Composition I <sup>1</sup> | 3 |
- Both must be completed with a grade of "C" or better*

Competency in math (see admission requirements)

A criminal history background check & drug testing are required.

### NURSING COURSES

Each course in the curriculum must be completed with a grade of “C” or better to meet program requirements.

First Semester		Cr. Hrs.
<input type="checkbox"/> NURS 1200	Intro to Health Concepts	4
<input type="checkbox"/> NURS 1201	Intro to Health Concepts Clinical	1
<input type="checkbox"/> NURS 1202	Health – Illness Concepts	4
<input type="checkbox"/> NURS 1203	Health – Illness Concepts Clinical	2
<input type="checkbox"/> NURS 1204	Tools for Nursing Education	2
<input type="checkbox"/> ZOO 1105	Anatomy & Physiology I <sup>1,2</sup>	<u>4</u>
		17
Second Semester		
<input type="checkbox"/> NURS 1205	Family Health Concepts	3
<input type="checkbox"/> NURS 1206	Family Health Concepts Clinical	2
<input type="checkbox"/> NURS 1207	Holistic Health Concepts	3
<input type="checkbox"/> NURS 1208	Holistic Health Concepts Clinical	2
<input type="checkbox"/> NURS 1209	Pharmacology	2
<input type="checkbox"/> ZOO 1106	Anatomy & Physiology II <sup>1,2</sup>	<u>4</u>
		16
Third Semester		
<input type="checkbox"/> MICR 1101	Basic Microbiology <sup>2</sup>	4
<input type="checkbox"/> NURS 1214	Medications in Nursing	2
<input type="checkbox"/> NURS 2212	Health Care Concepts	3
<input type="checkbox"/> NURS 2213	Health Care Concepts Clinical	2
<input type="checkbox"/> NURS 2214	Health Systems Concepts	3
<input type="checkbox"/> NURS 2215	Health Systems Concepts Clinical	<u>2</u>
		16
Fourth Semester		
<input type="checkbox"/> NURS 2201	Registered Nurse Review Course	2
<input type="checkbox"/> NURS 2216	Complex Health Concepts	6
<input type="checkbox"/> NURS 2217	Complex Health Concepts Clinical	4
<input type="checkbox"/> PSYC 2101	Intro to Psychology	<u>3</u>
		15

<sup>1</sup> Prerequisite course(s) may be required based on test scores.

<sup>2</sup> ZOO 1105 & 1106 and MICR 1101 or 1111 must have been completed within the last five years.

This nursing education program is a candidate for accreditation by the Accreditation Commission for Education in Nursing.

Accreditation Commission for Education in Nursing (ACEN)

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326 404-975-5000

<https://www.acenursing.us/candidates/candidacy.asp>

## OFFICE SYSTEMS TECHNOLOGY ~ MEDICAL OFFICE SPECIALIST

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

— This two-year program leads to the AAS Degree in Office Systems Technology / Medical Office Specialist. With its focus on essential administrative and technology-related tasks, the student will be prepared to become an effective and important member of any medical office environment. Graduates may fulfill roles such as office manager, medical secretary, medical transcriptionist and receptionist. The curriculum also may assist those already employed by enhancing existing skills and therefore providing advancement potential. Upon completion of the degree, the student may apply for both the 30-hour and 10-hour medical office certificates. ► **Total = 64 Hours**

— <b>First Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> CSCI 1243	Beginning Microsoft Word	3
<input type="checkbox"/> OFTC 1203	Building Keyboarding Speed/Accuracy I	1
<input type="checkbox"/> OFTC 1232	Business Data Entry	3
<input type="checkbox"/> OFTC 1280	Medical Terminology <sup>3</sup>	3
<input type="checkbox"/> OFTC 1281	Medical Transcription <sup>3</sup>	3
<input type="checkbox"/> PSYC 2101	Introduction to Psychology <sup>2</sup>	3
<input type="checkbox"/> PSYC 2106	<b>or</b> Human Relations <sup>2</sup>	3
		16

— <b>Second Semester</b>		
<input type="checkbox"/> CSCI 1102	Intro to Computers w/ Business Applications	3
<input type="checkbox"/> CSCI 2243	Intermediate Microsoft Word	3
<input type="checkbox"/> ENGL 1101	Rhetoric & Composition I <sup>1</sup>	3
<input type="checkbox"/> OFTC 1204	Building Keyboarding Speed/Accuracy II	1
<input type="checkbox"/> OFTC 1233	Office Accounting	3
<input type="checkbox"/> OFTC 1252	Records Management Concepts	3
	/ Computerized Applications	3
		16

— <b>Summer Term</b>		
<input type="checkbox"/> OFTC 2291	Cooperative Experience I	3
<input type="checkbox"/> BUSI 2203	<b>or</b> Business Ethics	3

— <b>Third Semester</b>		
<input type="checkbox"/> ALH 1201	Anatomy & Physiology Fundamentals	3
<input type="checkbox"/> CSCI 1263	Beginning Microsoft Excel	3
<input type="checkbox"/> MEDC 1206	Intro to Medical Coding	3
<input type="checkbox"/> CMA 1203	<b>or</b> Billing & Coding	3
<input type="checkbox"/> OFTC 1234	Communication in Technical Services	3
<input type="checkbox"/> OFTC 2261	Office Procedures and Technology	3
		15

— <b>Fourth Semester</b>		
<input type="checkbox"/> BUSI 1200	Job Strategy	1
<input type="checkbox"/> BUSI 1202	Work Ethics	1
<input type="checkbox"/> BUSI 2107	Business Communications	3
<input type="checkbox"/> COMM 1101	Principles of Effective Speaking	3
<input type="checkbox"/> CSCI 1255	Beginning Microsoft Access	3
<input type="checkbox"/> MATH 1202	Business Mathematics <sup>1,2</sup>	3
<input type="checkbox"/> MATH 1107	<b>or</b> Contemporary College Math	3
		14

— <b>RECOMMENDED ELECTIVE</b>		
<input type="checkbox"/> CSCI 1236	Integrating Technologies	2

<sup>1</sup>—Prerequisite course(s) may be required based test scores.

<sup>2</sup>—Talk to an advisor if transferring to a four-year institution.

<sup>3</sup>—In order to complete OFTC 1280 and OFTC 1281 in one semester, students must enroll in consecutive 8-week sessions.



**OFFICE SYSTEMS TECHNOLOGY  
~ MEDICAL OFFICE ASSISTANT**

*Occupational Certificate*

APPLIED SCIENCE & TECHNOLOGY DIVISION

— This one-year certificate curriculum is designed to provide students with the technical skills necessary for an entry-level position in any medical office environment. Students will be trained in the areas of keyboarding, office technology, medical terminology, transcription and billing / coding. ► **Total = 30 Hours**

Prerequisite: Completion with a “C” or better – CSCI 1101 or OFTC 1202 – or consent of division chair.

<b>First Semester</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> CSCI 1243 Beginning Microsoft Word	3
<input type="checkbox"/> MEDC 1206 Intro to Medical Coding	3
— CMA 1203 <b>or</b> Billing & Coding	3
<input type="checkbox"/> OFTC 1203 Building Keyboarding Speed/Accuracy I	1
<input type="checkbox"/> OFTC 1232 Business Data Entry	3
<input type="checkbox"/> OFTC 1280 Medical Terminology <sup>2</sup>	3
<input type="checkbox"/> OFTC 1281 Medical Transcription <sup>2</sup>	3
	16

<b>Second Semester</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> BUSI 1202 Work Ethics	1
<input type="checkbox"/> MATH 1202 Business Mathematics <sup>1</sup>	3
— MATH 1107 <b>or</b> Contemporary College Math	3
<input type="checkbox"/> OFTC 1204 Building Keyboarding Speed / Accuracy II	1
<input type="checkbox"/> OFTC 1233 Office Accounting	3
<input type="checkbox"/> OFTC 1252 Records Management Concepts / Computerized Applications	3
<input type="checkbox"/> PSYC 2101 Intro to Psychology	3
— PSYC 2106 or Human Relations	3
	14

<b>RECOMMENDED ELECTIVE</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> CSCI 1236 Integrating Technologies	2

<sup>1</sup>—Prerequisite course(s) may be required based on test scores.

<sup>2</sup>—In order to complete OFTC 1280 and OFTC 1281 in one semester, students must enroll in consecutive 8-week sessions.

**OFFICE SYSTEMS TECHNOLOGY  
~ MEDICAL SUPPORT SPECIALIST**

*Occupational Certificate*

APPLIED SCIENCE & TECHNOLOGY DIVISION

This one semester certificate program is designed to prepare students with the knowledge and skills necessary for an entry-level position in medical offices, hospitals, and other healthcare facilities. Students will be trained in basic computer skills, proper medical terminology, customer service communication, and medical billing and coding. ► **Total = 16 Hours**

<b>First Semester</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> ALH 1205 Clinical Experience	3
<input type="checkbox"/> BUSI 1202 Work Ethics	1
<input type="checkbox"/> CMA 1203 Billing & Coding	3
<input type="checkbox"/> CSCI 1102 Intro to Computers w/Business Applications	3
<input type="checkbox"/> HECO 1202 Health Care Terminology	3
<input type="checkbox"/> OFTC 1234 Communication in Technical Services	3
	16

**OFFICE SYSTEMS TECHNOLOGY**  
**← MEDICAL OFFICE ASSOCIATE**

*Occupational Certificate*

APPLIED SCIENCE & TECHNOLOGY DIVISION

— This certificate is designed to provide students with the basic information needed to pursue an entry-level position in a medical office setting or enhance the skills of the already-employed medical office staff. → **Total = 10 Hours**

Prerequisite: CSCI 1101, or OFTC 1202, or OFTC 2201 with “C” or better or 35 words/minute, or consent of instructor

<b>First Semester</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> BUSI 1202 — Work Ethics	1
<input type="checkbox"/> MEDC 1206 — Intro to Medical Coding <b>or</b>	
— CMA 1203 — Billing & Coding	3
<input type="checkbox"/> OFTC 1280 — Medical Terminology*	3
<input type="checkbox"/> OFTC 1281 — Medical Transcription*	3
	<hr/> 10

**RECOMMENDED ELECTIVE**

<input type="checkbox"/> CSCI 1236 — Integrating Technologies	2
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\* In order to complete OFTC 1280 and OFTC 1281 in one semester, students must enroll in consecutive 8-week sessions.

## OFFICE SYSTEMS TECHNOLOGY ~ OFFICE SYSTEMS TECHNOLOGY SPECIALIST

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

The two-year Office Systems Technology Specialist curriculum is designed to provide students with the background in technical skills and general studies necessary for a career as an administrative assistant, technical services associate or similar position. Students will focus on the concepts and methods used to organize and manage information as well as the development or enhancement of skills necessary to effectively implement technology into the office and / or business setting. Technology include, but are not limited to, word processing, spreadsheet, database and presentation software, information managing software, web page editors and social media. ► **Total = 64 Hours**

<b>First Semester</b>	<b>Cr. Hrs.</b>
<input type="checkbox"/> CSCI 1102 Intro to Computers w/ Business Applications	3
<input type="checkbox"/> CSCI 1243 Beginning Microsoft Word <sup>3</sup>	3
<input type="checkbox"/> ENGL 1101 Rhetoric and Composition I <sup>1</sup>	3
<input type="checkbox"/> OFTC 1203 Building Keyboarding Speed & Accuracy I	1
<input type="checkbox"/> OFTC 1232 Business Data Entry	3
<input type="checkbox"/> PSYC 2101 Introduction to Psychology	3
<input type="checkbox"/> PSYC 2106 <b>or</b> Human Relations	3
	16

<b>Second Semester</b>	
<input type="checkbox"/> BUSI 1202 Work Ethics	1
<input type="checkbox"/> CSCI 2243 Intermediate Microsoft Word	3
<input type="checkbox"/> MATH 1202 Business Mathematics <sup>1,2</sup>	3
<input type="checkbox"/> MATH 1107 <b>or</b> Contemporary College Mathematics	3
<input type="checkbox"/> OFTC 1204 Building Keyboarding Speed/Accuracy II	1
<input type="checkbox"/> OFTC 1206 Computerized Accounting with QuickBooks	1
<input type="checkbox"/> OFTC 1233 Office Accounting	3
<input type="checkbox"/> OFTC 1252 Records Management Concepts	3
/ Computerized Applications	3
	15

<b>Summer Term</b>	
<input type="checkbox"/> OFTC 2291 Cooperative Experience I	3
<input type="checkbox"/> BUSI 2203 <b>or</b> Business Ethics	3

<b>Third Semester</b>	
<input type="checkbox"/> BUSI 2107 Business Communications	3
<input type="checkbox"/> COMM 1101 Principles of Effective Speaking	3
<input type="checkbox"/> CSCI 1263 Beginning Microsoft Excel <sup>3</sup>	3
<input type="checkbox"/> OFTC 1234 Communication in Technical Services	3
<input type="checkbox"/> OFTC 2261 Office Procedures and Technology	3
	15

<b>Fourth Semester</b>	
<input type="checkbox"/> BUSI 1200 Job Strategy	1
<input type="checkbox"/> CSCI 1236 Integrating Technologies	2
<input type="checkbox"/> CSCI 1255 Beginning Microsoft Access <sup>3</sup>	3
<input type="checkbox"/> CSCI 1275 Microsoft PowerPoint <sup>3</sup>	3
<input type="checkbox"/> CSCI 2245 Integrating Microsoft Applications <sup>3</sup>	3
<input type="checkbox"/> OFTC 2265 Office Supervision & Administration	3
	15

<sup>1</sup> Prerequisite course(s) may be required based test scores.

<sup>2</sup> Talk to an advisor if transferring to a four-year institution.

<sup>3</sup> Successfully completing these five classes results in the Microsoft User Certificate. See the description under the IT Systems Assistant heading for more information.

NOTE REVISED COURSE SEQUENCE.

**MANUFACTURING TECHNOLOGY**

Associate in Applied Science Degree

APPLIED SCIENCE & TECHNOLOGY DIVISION

The Manufacturing Technology program is designed to prepare graduates for supervisory or technical positions in manufacturing. Curriculum requirements are broad-based to enable graduates to obtain employment in a wide variety of manufacturing areas, such as the Manufacturing Skill Standards Council (MSSC) industry-recognized credentialing system which covers the four critical production functions common to all sectors of manufacturing. The technician will develop a fundamental knowledge of materials, manufacturing process, quality processes, and computer, electrical, mechanical and machine control systems related to manufacturing disciplines. ► Total = 64 Hours

First Semester		Cr. Hrs.
<input type="checkbox"/> ENGL 1101	Rhetoric & Composition I <sup>1</sup>	3
<input type="checkbox"/> MACH 1201	Machine Technology I	4
<input type="checkbox"/> MATH 1201	Technical Math <sup>1</sup>	3
<input type="checkbox"/> MFG 1207	Safety	3
<input type="checkbox"/> <b>MFG 1210</b>	<b>Quality Practices &amp; Measurement</b>	<b>3</b>
<input type="checkbox"/> MFG 1208	Manufacturing Processes & Production	<del>3</del>
		16
Second Semester		
<input type="checkbox"/> INEL 1291	Basic Electronics for Technicians	5
<input type="checkbox"/> IST 2230	Introduction to PLCs	3
<input type="checkbox"/> MACH 1202	Machine Technology II	4
<input type="checkbox"/> <b>MFG 1208</b>	<b>Manufacturing Processes &amp; Production</b>	<b>3</b>
<input type="checkbox"/> MFG 1209	Maintenance Awareness	3
<input type="checkbox"/> MFG 1210	Quality Practices & Measurement	<del>3</del>
		18
Third Semester		
<input type="checkbox"/> CSCI 1101	Introduction to Computers	3
<input type="checkbox"/> IST 2231	Advanced PLCs	3
<input type="checkbox"/> MFG 1230	Blueprint Reading	3
<input type="checkbox"/> WELD 1270	Introduction to Welding Processes	<u>4</u>
		13
Fourth Semester		
<input type="checkbox"/> COMM 1101	Principles of Effective Speaking	3
<input type="checkbox"/> FLPR 1262	Fluid Power Fundamentals	5
<input type="checkbox"/> INEL 1250	Electric Motors & Control Circuits	6
<input type="checkbox"/> PSYC 2106	Human Relations	<u>3</u>
		17
Technical Electives		
<input type="checkbox"/> IST 1230	Intro to Robotics	3
<input type="checkbox"/> MACH 1203	Machine Technology III	3
<input type="checkbox"/> MACH 1205	Special Problems in Machining	3
<input type="checkbox"/> MFG 1200	Manufacturing Employment Skills	3
<input type="checkbox"/> WELD 1272	Structural Shielded Metal Arc Welding	4
<input type="checkbox"/> WELD 1282	GMAW / GTAW Welding	4

<sup>1</sup> Prerequisite course(s) may be required based test scores.

NOTE REVISED COURSE SEQUENCE AND NEW NOTE.

**MANUFACTURING TECHNOLOGY**

Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

**CERTIFIED PRODUCTION TECHNICIAN**

The Manufacturing Skill Standards Council (MSSC) industry-recognized credentialing system leading to a certified production technician covers the four critical production functions common to all sectors of manufacturing. This program provides the foundational knowledge and skill sets applicable for entry- to mid-level production technician jobs in the manufacturing industry. It is designed for individuals wanting to enter the manufacturing field as production line workers as well as experienced employees wishing to seek MSSC certification. Students must receive a "C" or better in all courses. ► Total = 16 Hours

First Semester		Cr. Hrs.
<input type="checkbox"/> MFG 1207	Safety	3
<input type="checkbox"/> <b>MFG 1210</b>	<b>Quality Practices &amp; Measurement</b>	<b>3</b>
<input type="checkbox"/> MFG 1208	Manufacturing Processes & Production	3
<input type="checkbox"/> MFG 1209	Maintenance Awareness	3
<input type="checkbox"/> MFG 1210	Quality Practices & Measurement	<del>3</del>
<input type="checkbox"/>	Technical Elective(s)	<u>4</u>
		16

NOTE: MFG courses must be taken in listed sequence.

## GRAPHIC DESIGN

Associate in Applied Science Degree  
 APPLIED SCIENCE & TECHNOLOGY DIVISION

Graphic design includes planning, analyzing and creating visual solutions to communication problems. Graphic designers use print, electronic and film media while using a variety of methods such as color, type, illustration, photography, animation and various print and layout techniques. Graphic designers develop the overall layout and production design of magazines, newspapers, journals, corporate reports and other publications. They also produce promotional displays, packaging, marketing brochures for products and services, and logos for products and business, and develop signs / signage for systems for design, interactive media, multimedia projects and may also create the opening and closing credits of movies and television programs. Surveys of area businesses indicate a demand for graduates of this two-year Associate in Applied Science Degree program.

Total = 67 Hours

### First Semester

	Cr. Hrs.
GRD 1205 Drawing for Communications (option)	3
ENGL 1101 Rhetoric and Composition I	3
GRD 1201 Introduction to Graphic Design	3
GRD 1202 Typography and Color Theory	3
GRD 2201 Adobe Essentials I	3
<del>GRD 1208 History of Graphic Design - moved</del>	<del>3</del>
	18

### Second Semester

GRD 1215 Web Page Design	3
COMM 1101 Principles of Effective Speaking	3
GRD 1203 Advertising Design	3
<b>GRD 1206 Production Methods (credit hour increase)</b>	<b>3</b>
GRD 2215 Adobe Essentials II	3
	15

### Third Semester

<del>ENGL 1102 Rhetoric and Composition II</del>	<del>3</del>
<del>GRD 2208 Electronic Prepress</del>	<del>3</del>
GRD 2209 Computer Type Design	3
GRD 2220 Adobe Essentials III	3
<b>MATH Math Elective (moved)</b>	<b>3</b>
PSYC 2101 Introduction to Psychology (moved)-option	3
	18

### Fourth Semester

<del>ARCH 2207 Rendering</del>	<del>4</del>
GRD 2204 Portfolio Review	3
<del>Technical Elective</del>	<del>3</del>
GRD 2203 Digital Illustration	3
GRD 2218 Package Design	3
	16

## VISUAL COMMUNICATION DESIGN

Associate in Applied Science Degree  
 APPLIED SCIENCE & TECHNOLOGY DIVISION

**Visual Communication Design** includes planning, analyzing and creating visual solutions to communication problems. Graphic designers use print, electronic and film media while using a variety of methods such as color, type, illustration, photography, animation and various print and layout techniques. Graphic designers develop the overall layout and production design of magazines, newspapers, journals, corporate reports and other publications. They also produce promotional displays, packaging, marketing brochures for products and services, and logos for products and business, and develop signs / signage for systems for design, interactive media, multimedia projects and may also create the opening and closing credits of movies and television programs. Surveys of area businesses indicate a demand for graduates of this two-year Associate in Applied Science Degree program.

Total = 67 Hours

### Fall Semester

	Cr. Hrs.
<input type="checkbox"/> <b>ART 1105/ Drawing I</b>	
<input type="checkbox"/> <b>GRD 1205 Drawing for Communications</b>	<b>3</b>
<input type="checkbox"/> ENGL 1101 Rhetoric and Composition I	3
<input type="checkbox"/> GRD 1201 Introduction to Graphic Design	3
<input type="checkbox"/> GRD 1202 Typography and Color Theory	3
<input type="checkbox"/> GRD 2201 Adobe Essentials I	3
<input type="checkbox"/> <b>MATH Math Elective</b>	<b>3</b>
	18

### Spring Semester

<input type="checkbox"/> GRD 1215 Web Page Design	3
<input type="checkbox"/> <b>COMM 1101 Principles of Effective Speaking</b>	<b>3</b>
<input type="checkbox"/> GRD 1203 Advertising Design	3
<input type="checkbox"/> <b>GRD 1206 Production Prepress</b>	<b>4</b>
<input type="checkbox"/> GRD 2215 Adobe Essentials II	3
<input type="checkbox"/> <b>GRD 1209 Motion Design I</b>	<b>3</b>
	19

### Fall Semester

<input type="checkbox"/> <b>GRD 2205 Motion Design II</b>	<b>3</b>
<input type="checkbox"/> <b>GRD 2206 Motion Design III</b>	<b>3</b>
<input type="checkbox"/> GRD 2209 Computer Type Design	3
<input type="checkbox"/> GRD 2220 Adobe Essentials III	3
<input type="checkbox"/> <b>GRD 1220 Advanced Web Design or</b>	
<input type="checkbox"/> <b>MRKT 2201 Principles of Marketing</b>	<b>3</b>
	15

### Spring Semester

<input type="checkbox"/> CSCI 1102 Intro to Computers w/ Business Applications	3
<input type="checkbox"/> <b>GRD 2204 Portfolio Review</b>	<b>3</b>
<input type="checkbox"/> <b>BUSI 2107/ Business Communications/</b>	
<input type="checkbox"/> <b>PSYC 2101 Introduction to Psychology</b>	<b>3</b>
<input type="checkbox"/> GRD 2203 Digital Illustration	3
<input type="checkbox"/> GRD 2218 Package Design	3
	<u>3</u>
	15

## GRAPHIC DESIGN

### Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

► **Total = 33 Hours**

**First Semester**

	<b>Cr. Hrs.</b>
<input type="checkbox"/> GRD 1201 Introduction to Graphic Design	3
<input type="checkbox"/> GRD 1202 Typography and Color Theory	3
<input type="checkbox"/> GRD 2201 Adobe Essentials I	<u>3</u>
	9

**Second Semester**

<input type="checkbox"/> GRD 1203 Advertising Design	3
<input type="checkbox"/> GRD 1206 Production Methods I	<u>3</u>
<input type="checkbox"/> GRD 2215 Adobe Essentials II	<u>3</u>
	9

**Third Semester**

<input type="checkbox"/> GRD 2208 Electronic Prepress	3
<input type="checkbox"/> GRD 2220 Adobe Essentials III	<u>3</u>
	6

**Fourth Semester**

<input type="checkbox"/> GRD 1215 Web Page Design	3
<input type="checkbox"/> GRD 2204 Portfolio Review	<u>3</u>
<input type="checkbox"/> GRD 2218 Package Design	<u>3</u>
	9

## GRAPHIC TECHNICIAN

### Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

The Graphic Technician Certificate program prepares students for employment requiring design responsibilities in a variety of organizational settings. The curriculum partners the necessary knowledge of design techniques with skills needed to be successful in business settings through enhanced communications skills and a working knowledge of office systems software.

► **Total = 39 Hours**

**First Semester**

	<b>Cr. Hrs.</b>
GRD 1201 Introduction to Graphic Design	3
GRD 1202 Typography and Color Theory	3
GRD 2201 Adobe Essentials I	<u>3</u>
	9

**Second Semester**

GRD 1203 Advertising Design	3
<b>GRD 1206 Production Methods I</b>	<b>3</b>
GRD 2215 Adobe Essentials II	<u>3</u>
	9

**Third Semester**

<del>GRD 2208 Electronic Prepress</del>	<del>3</del>
GRD 2209 Computer Type Design	3
CSCI 1102 Intro to Computers with Business Applications	3
GRD 2220 Adobe Essentials III	<u>3</u>
	12

**Fourth Semester**

GRD 2218 Package Design	3
BUS 2107 Business Communications	3
GRD 2204 Portfolio Review	<u>3</u>
	9

## MARKETING SPECIALIST

### Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

The Marketing Specialist certificate prepares students for an entry-level career in marketing for business and industry- helping companies figure out what sells, what people are buying, and what type of people are buying what products. The curriculum also provides individuals with skills to create graphics to illustrate important information and translate complex findings and materials into easy-to-understand graphic solutions, brainstorm with team members for creative promotional campaigns and advertising while using appropriate channels and media outlets.

► **Total = 24 Hours**

**First Semester**

	<b>Cr. Hrs.</b>
GRD 1201 Introduction to Graphic Design	3
GRD 1202 Typography and Color Theory	3
GRD 2201 Adobe Essentials I	3
<b>MRKT 2201 Principles of Marketing</b>	<b><u>3</u></b>
	12

**Second Semester**

GRD 1203 Advertising Design	3
GRD 1215 Web Page Design	3
GRD 2215 Adobe Essentials II	3
<b>BUSI 2107 Business Communications</b>	<b><u>3</u></b>
	12

Stackable into Visual Communication Design AAS and Business AAS.

## GRAPHIC TECHNICIAN

### Occupational Certificate

APPLIED SCIENCE & TECHNOLOGY DIVISION

The Graphic Technician Certificate program prepares students for employment requiring design responsibilities in a variety of organizational settings. The curriculum partners the necessary knowledge of design techniques with skills needed to be successful in business settings through enhanced communications skills and a working knowledge of office systems software.

► **Total = 37 Hours**

**First Semester**

	<b>Cr. Hrs.</b>
GRD 1201 Introduction to Graphic Design	3
GRD 1202 Typography and Color Theory	3
GRD 2201 Adobe Essentials I	<u>3</u>
	9

**Second Semester**

GRD 1203 Advertising Design	3
<b>GRD 1206 Production Prepress</b>	<b>4</b>
GRD 2215 Adobe Essentials II	<u>3</u>
	10

**Third Semester**

GRD 2209 Computer Type Design	3
CSCI 1102 Intro to Computers with Business Applications	3
GRD 2220 Adobe Essentials III	<u>3</u>
	9

**Fourth Semester**

GRD 2218 Package Design	3
BUS 2107 Business Communications	3
GRD 2204 Portfolio Review	<u>3</u>
	9

Stackable into Visual Communication Design AAS

*NOTE COURSE OPTION ADDED TO CERTIFICATE.*

## **VETERINARY ASSISTANT**

*Occupational Certificate*

ALLIED HEALTH DIVISION

The Veterinary Assistant certificate program prepares students with the knowledge and skills needed for a career working with animals in a variety of settings such as veterinary clinics, boarding kennels, grooming salons, pet shops and animal shelters. ► **Total 17 hours**

<b>Fall Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> OFTC 1234	Communication in Technical Services	3
<input type="checkbox"/> VET 1210	Small Animal Nursing I	3
<input type="checkbox"/> VET 1214	Animal Grooming	3
<input type="checkbox"/> VET 1215	Animal Facilities Management	3
<input type="checkbox"/> VET 1218	Veterinary Practice Management	2
<input type="checkbox"/> VET 2231	Veterinary Technology Internship I	<u>3</u>
		17

## **VETERINARY ASSISTANT**

*Occupational Certificate*

ALLIED HEALTH DIVISION

The Veterinary Assistant certificate program prepares students with the knowledge and skills needed for a career working with animals in a variety of settings such as veterinary clinics, boarding kennels, grooming salons, pet shops and animal shelters. ► **Total 17 hours**

<b>Fall Semester</b>		<b>Cr. Hrs.</b>
<input type="checkbox"/> OFTC 1234	Communication in Technical Services	3
<input type="checkbox"/> VET 1210	Small Animal Nursing I	3
<input type="checkbox"/> VET 1214	Animal Grooming <b>or</b>	3
<input type="checkbox"/> <b>SERV 1101</b>	<b>Service Learning</b>	3
<input type="checkbox"/> VET 1215	Animal Facilities Management	3
<input type="checkbox"/> VET 1218	Veterinary Practice Management	2
<input type="checkbox"/> VET 2231	Veterinary Technology Internship I	<u>3</u>
		17

CHANGE TO CREDIT HOURS & LAB HOURS – EFFECTIVE 6/1/2019

**AGRI 1204 – Physics of Hydraulics (5 4)**

A course designed to acquaint the student with basic hydraulic laws and formulas. The student also will have hands-on experience with components for disassembly and reassembly. Lecture 2 hours. Lab 4 hours.

CHANGE TO COURSE TITLE – EFFECTIVE 6/1/2019

**AGRI 1205 – Assembly, Adjustment and Reconditioning Farm Equipment Maintenance (5)**

This course is designed to give the student a basic understanding of farm equipment design and adjustments for proper operation. Students will use operator and service manuals to adjust, maintain and repair agricultural machinery. Shop activities will develop skills needed for adjustment and reconditioning of farm-related equipment. Lecture 2 hours. Lab 6 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**AGRI 1207 – Machinery Reconditioning Restoration (5)**

This course is designed to give a student basic knowledge of surface prep work associated with painting sheet metal and chassis of farm equipment. The student will be introduced to types of paints, proper paint mixing and finishes. The student will be instructed on dent pulling, surface priming and painting techniques. Lecture 2 hours. Lab 6 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**AGRI 2206 – Advanced Electrical & Hydraulics (4)**

This course provides in-depth study of modern electric and hydraulic troubleshooting techniques. The student will take part in lecture and lab practices involving electronic over hydraulic controls of power shift, CVT and hydrostat drive transmissions. Electronically displaced hydraulic systems and modern computer-controlled system troubleshooting and proper repair techniques will be practices. Lecture 2 hours. Lab 4 hours.

CHANGE IN CREDIT HOURS & LAB HOURS – EFFECTIVE 6/1/2019

**DIEL 1203 – Heavy Equipment Alignment (4 2)**

A study of component system operations of steering and suspensions related to vehicles in the transportation and construction industry. Emphasis will be placed on diagnostics and alignment of these systems. Lecture 1 hour. Lab 2 hours.

CHANGE IN CREDIT HOURS, LECTURE HOURS & LAB HOURS – EFFECTIVE 6/1/2019

**DIEL 1206 – Advanced Diesels (4)**

This course is an in-depth study of the systems used by diesel engine manufacturers. Lecture 2 1 hours. Lab 2 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**GRD 1209 – Motion Design I (3)**

This course explores time-based media and essential principles of motion design through exercises in creative problem-solving, composition, digital media, movement, idea generation and collaboration. Various techniques used to create ideas in motion include drawing, photography, video, audio and animation. Emphasis on movement, metaphorphosis, transition, sequential, time and rhythm, pace, and editing. This course will include introductions to software such as Adobe Photoshop, Premiere, and After Effects, as well as Mac OS. Lecture 1 hour. Lab 4 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**GRD 2205 – Motion Design II (3)**

This course will concentrate on various aspects of audio and video post-production tools and techniques, using Adobe After Effects with an emphasis on creating 2-D animation. Students will learn the basic principles of animation, storyboarding, character creation, sound design, compositions with video, Photoshop, Illustrator and other files. Creation of advanced text effects, video blending, keying effects and track mattes will be addressed. Students will view and analyze a variety of existing and peer work. Lecture 1 hour. Lab 4 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**GRD 2206 – Motion Design III (3)**

This course provides a solid foundation in Premiere Pro for video editing. An emphasis on skills and techniques required to organize, edit and export video projects in a variety of formats. Lecture 1 hour. Lab 4 hours.

NEW COURSE – EFFECTIVE 3/15/2019

**SERV 1101 – Service Learning (.5-3)**

A service learning experience to encourage the personal, academic and professional development of the individual. Student selection and placement within the college or with an agency, community-based organization, business or institution is based upon the student's interest, knowledge and skills. Service opportunities may include, but are not limited to, tutoring, literacy training, neighborhood improvement, youth activities, environmental safety, animal shelter care, elderly and disable assistance, hospital or mental health care. This course may be repeated three times and offered as variable credit. Lab 1-6 hours.

NEW COURSE – EFFECTIVE 6/1/2019

**ALH 1205 – Clinical Experience (3)**

This course will provide students with the opportunity to demonstrate administrative skills and professional communications in a medical office setting. The clinical learning experience will allow students to perform clerical responsibilities and processing of information in a supervised setting. Lab 6 hours.

CHANGE IN CREDIT HOURS, LECTURE HOURS & LAB HOURS – EFFECTIVE 6/1/2019

**DIEL 1206 – Advanced Diesels (4)**

This course is an in-depth study of the systems used by diesel engine manufacturers. Lecture 2 1 hours. Lab 2 hours.

NEW COURSE – EFFECTIVE 6/30/2019

**FMGT 1201 – Intro to Facility Management (3)**

This is an introductory course to facility management which includes terminology, business practices, and career pathways. This course introduces the fundamental topics of Operations & Maintenance, Project Management, Business Finance, and Leadership. Lecture 3 hours.

NEW COURSE – EFFECTIVE 6/30/2019

**FMGT 1202 – Building Environments (3)**

Understanding concepts of building environments is fundamental to the design, operation, and maintenance of facilities. Knowledge of systems and controls enables facility managers to create healthy and productive environments for occupants. This course will explain how HVAC systems function together to create an appropriate building environment. Lecture 3 hours.

NEW COURSE – EFFECTIVE 6/30/2019

**FMGT 1203 – Waste Management (1)**

This course will provide an overview of the historical and regulatory development of waste management. This course will explain the management of solid waste which may be encountered on a daily basis and address identification, transportation, and disposal of wastes. Students will discuss both conventional and innovative technologies which are used in the waste management industry. Lecture 1 hour.

NEW COURSE – EFFECTIVE 6/30/2019

**FMGT 1204 – Fleet Management (1)**

This course will cover the basic concepts of fleet management. A fleet can include trailers, landscaping equipment, utility vehicles, trucks, buses, etc. The student will gain an understanding of the elements of fleet management including procurement, safety, accident prevention, operator training, maintenance, inspections and security. Lecture 1 hour.

COURSE REUSED FOR FACILITY MANAGEMENT – EFFECTIVE 6/30/2019

**GFM 1201 – Plan and Develop Green Facilities (4)**

This course will explore using the life-cycle of materials and energy to understand how facilities are managed and operated through green techniques. This will include new construction, retrofitting existing structures, and surrounding sites. Lecture 2 hours. Lab 4 hours.



COURSE REUSED FOR FACILITY MANAGEMENT – EFFECTIVE 6/30/2019

**GFM 1202 – Building Automation Control Systems (4)**

This course will provide the student a broad introduction to the specific issues involved with Building Automation Systems (BAS). Students will explore the processes that occur at every level in the air conditioning industry, including digital controls, energy conversation control strategies, and system maintenance. Lecture 2 hours. Lab 4 hours.

COURSE REUSED FOR FACILITY MANAGEMENT – EFFECTIVE 6/30/2019

**GFM 1203 – Energy Modeling and Management (4)**

This course will teach students methods to evaluate, choose, use, calibrate, analyze, and interpret the results of energy modeling software when applied to buildings systems, energy performance and economics. Students will demonstrate competence to model new and existing buildings systems with their full range of physics, environmental issues, and orientation. Lecture 2 hours. Lab 4 hours.

COURSE REUSED FOR FACILITY MANAGEMENT – EFFECTIVE 6/30/2019

**GFM 1204 – Landscape and Grounds Management (4)**

This course will teach students methods to save energy, lower water consumption, and maximize available resources, in developing eco-friendly and aesthetically pleasing environments. Students will learn techniques in managing both products and grounds care department use. Lecture 2 hours. Lab 4 hours.

COURSE REUSED FOR FACILITY MANAGEMENT – EFFECTIVE 6/30/2019

**SDGB 1201 – Sustainable Building Designs (3)**

The purpose of this course is to provide the student with an understanding of why sustainable design of buildings is important for our future and how it can have a global impact. Topics will include sustainable living and being stewards of the earth. This course will also assist in the preparation of taking the Leadership in Energy and Environmental Design (LEED) exam. Lecture 3 hours.

CHANGE IN COURSE TITLE, CREDIT HOURS & LECTURE HOURS – EFFECTIVE 7/1/2019

**GRD 1206 – Production Methods Prepress (3) (4)**

*Prerequisite: GRD 1201, 1203, 1204, 2201*

Printing production is introduced with an emphasis on printing processes, type specification, file formats, ink analysis, printing substrates-paper stock / vinyl, product price estimation, printer bids and printing terminology. Current reproduction methods of print material will be discussed. Emphasis on design projects that demonstrate these various process techniques. Lecture ± 2 hours. Lab 4 hours.

CHANGE IN CREDIT HOURS & LAB HOURS – EFFECTIVE 10/2/2019

**MICR 1111 – Microbiology (5) (4)**

This course is a study of the basic principles and activities of microorganisms, including: archaea, bacteria, algae, protozoa, yeasts, molds, viruses, and invertebrate parasites. Topics covered will include the history of microbiological concepts including their classification and evolution, microbial cell structure and function, as well as controlling microorganisms. Their environmental and societal impact through health and disease, as well as tools of biotechnology, is included. Lecture 3 hours. Lab 4 2 hours. □ IAI ~ L1 903L

CHANGE IN CREDIT HOURS & LECTURE HOURS – EFFECTIVE 1/2/2020

**MATH 1111 – Statistics (3) (4)**

*Prerequisite: MATH 1403 or 1407 with a “C” or better or equivalent placement*

A course recommended for students in such areas as math, science, economics, education and business. Topics include the language and process of statistics; descriptive methods using quantitative, qualitative and bivariate data; linear correlation and regression; fundamentals of probability; probability distributions, including binomial, normal and chi-square distribution; confidence intervals; and hypothesis testing using P-values and statistical software. Tradition and online format. Lecture 3 4 hours. □ IAI ~ M1 902