Date: September 17, 2010

To: Board Members

From: Shawn Mackey, Director CTE

Re: 2010 Curricula Revisions

As part of the annual curriculum revision and development process in Career & Technical Education, postsecondary curriculum writing and revision teams (consisting of college faculty, deans and directors, business and industry representatives, and curriculum specialists from Mississippi State University's Research and Curriculum Unit) updated and developed the listed post-secondary curricula. All curricula were posted online for validation by college faculty, deans and directors, after which the final validated curricula were posted online at: http://info.rcu.msstate.edu/services/validation.asp.

Postsecondary Programs

- Aviation Maintenance Technology
- Banking and Finance Technology
- Computer Servicing Technology
- Construction Equipment Operation
- Drafting and Design Cluster
- Graphics and Print Communications
- Heating Ventilation AC and Refrigeration Technology
- Industrial Maintenance Trades
- Meat Merchandising Technology
- Paralegal Technology
- Physical Therapist Assistant
- Residential Carpentry Technology
- Surgical Technology
- Veterinary Assisting Technology

Each curriculum framework follows the format established for postsecondary career and technical programs. Postsecondary curricula will be approved for implementation in the 2010-2011 school year and must be implemented by July 1, 2011.

The *Executive Summary-Postsecondary Curricula Frameworks* contains the following elements for each revised postsecondary curricula:

- Program Description
- Suggested Course Sequence
- Listing of Courses
  - >Course Name
  - >Course Abbreviation
  - >Classification
  - >Description (including recommended number of lecture and lab contact hours)
  - >Pre/Corequisites

All curricula frameworks are designed to provide local programs with a foundation that can be used to develop localized instructional management plans and course syllabi. Contents of each framework are not designed to limit the content of a course, but to provide a minimum baseline of instruction, which all programs must meet. Teachers, administrators, and instructional management personnel are encouraged to expand and enhance the statewide frameworks to better meet the needs of their students.

We request Board approval to submit these final validated curricula for public review and comment through the process required by the Administrative Procedures Act. A summary of the revised programs and a list of articulated courses are attached.

REVISED MISSISSIPPI CURRICULUM FRAMEWORKS FOR VOCATIONAL–TECHNICAL PROGRAMS

POSTSECONDARY EXECUTIVE SUMMARY

2010

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REVISED POSTSECONDARY CURRICULUM FRAMEWORKS
2010 EDITION
EXECUTIVE SUMMARY
FOREWORD

As the world economy continues to evolve, businesses and industries must adopt new practices and processes in order to survive. Quality and cost control, work teams and participatory management, and an infusion of technology are transforming the way people work and do business. Employees are now expected to read, write, and communicate effectively; think creatively, solve problems, and make decisions; and interact with each other and the technologies in the workplace. Vocational–technical programs must also adopt these practices in order to provide graduates who can enter and advance in the changing work world.

The curriculum framework in this document reflects these changes in the workplace and a number of other factors that impact local vocational–technical programs. Federal and state legislation calls for articulation between high school and community college programs, integration of academic and vocational skills, and the development of sequential courses of study that provide students with the optimum educational path for achieving successful employment. National skills standards, developed by industry groups and sponsored by the U.S. Department of Education and Labor, provide vocational educators with the expectations of employers across the United States. All of these factors are reflected in the framework found in this document.

Each postsecondary program of instruction consists of a program description and a suggested sequence of courses that focuses on the development of occupational competencies. Each vocational–technical course in this sequence has been written using a common format that includes the following components:

- Course Name – A common name that will be used by all community/junior colleges in reporting students

- Course Abbreviation – A common abbreviation that will be used by all community/junior colleges in reporting students

- Classification – Courses may be classified as the following:
    - Vocational–technical core – A required vocational–technical course for all students.
    - Area of concentration (AOC) core – A course required in an area of concentration of a cluster of programs
    - Vocational–technical elective – An elective vocational–technical course
    - Related academic course – An academic course that provides academic skills and knowledge directly related to the program area
    - Academic core – An academic course that is required as part of the requirements for an associate's degree

- Description – A short narrative that includes the major purpose(s) of the course and the recommended number of hours of lecture and laboratory activities to be conducted each week during a regular semester

- Prerequisites – A listing of any courses that must be taken prior to or on enrollment in the course

- Corequisites – A listing of courses that may be taken while enrolled in the course

- Competencies and Suggested Objectives – A listing of the competencies (major concepts and performances) and of the suggested student objectives that will enable students to demonstrate mastery of these competencies

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75% of the time allocated to each course. The remaining 25% of each course should be developed at the local district level and may reflect the following:
    - Additional competencies and objectives within the course related to topics not found in the state framework, including activities related to specific needs of industries in the community college district
    - Activities that develop a higher level of mastery on the existing competencies and suggested objectives
    - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed/revised
    - Activities that implement components of the Mississippi Tech Prep initiative, including integration of academic and vocational–technical skills and coursework, school-to-work transition activities, and articulation of secondary and postsecondary vocational-–technical programs
    - Individualized learning activities, including work site learning activities, to better prepare individuals in the courses for their chosen occupational areas

- Sequencing of the course within a program is left to the discretion of the local district. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors.

- Programs that offer an Associate of Applied Science degree must include a minimum 15 semester credit hour academic core. Specific courses to be taken within this core

are to be determined by the local district. Minimum academic core courses are as follows:

- 3 semester credit hours — Math/Science Elective
- 3 semester credit hours — Written Communications Elective
- 3 semester credit hours — Oral Communications Elective
- 3 semester credit hours — Humanities/Fine Arts Elective
- 3 semester credit hours — Social/Behavioral Science Elective

It is recommended that courses in the academic core be spaced out over the entire length of the program so that students complete some academic and vocational–technical courses each semester. Each community/junior college has the discretion to select the actual courses that are required to meet this academic core requirement.

- In instances where secondary programs are directly related to community and junior college programs, competencies and suggested objectives from the high school programs are listed as Baseline Competencies. These competencies and objectives reflect skills and knowledge that are directly related to the community and junior college vocational–technical program. In adopting the curriculum framework, each community and junior college is asked to give assurances that:
  - students who can demonstrate mastery of the Baseline Competencies do not receive duplicate instruction and
  - students who cannot demonstrate mastery of this content will be given the opportunity to do so.

- The roles of the Baseline Competencies are to:
  - assist community/junior college personnel in developing articulation agreements with high schools and
  - ensure that all community and junior college courses provide a higher level of instruction than their secondary counterparts.

- The Baseline Competencies may be taught as special “Introduction” courses for 3–6 semester hours of institutional credit that will not count toward associate degree requirements. Community and junior colleges may choose to integrate the Baseline Competencies into ongoing courses in lieu of offering the “Introduction” courses or may offer the competencies through special projects or individualized instruction methods.

- Technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their areas.

In order to provide flexibility within the districts, individual courses within a framework may be customized by:

- adding new competencies and suggested objectives;
- revising or extending the suggested objectives for individual competencies;
- integrating baseline competencies from associated high school programs; or

- adjusting the semester credit hours of a course to be up 1 hour or down 1 hour (after informing the State Board for Community and Junior Colleges [SBCJC] of the change).

In addition, the curriculum framework as a whole may be customized by:

- resequencing courses within the suggested course sequence;
- developing and adding a new course that meets specific needs of industries and other clients in the community or junior college district (with SBCJC approval); or
- utilizing the technical elective options in many of the curricula to customize programs.

COMMUNITY/JUNIOR COLLEGE VOCATIONAL–TECHNICAL PROGRAMS
2009 REVISION

Aviation Maintenance Technology
Banking and Finance Technology
Computer Servicing Technology
Construction Equipment Operation
Drafting and Design Cluster
Graphics and Print Communications
Heating and Ventilation AC and Refrigeration Technology
Industrial Maintenance Trades
Meat Merchandising Technology
Paralegal Technology
Physical Therapist Assistant
Residential Carpentry Technology
Surgical Technology
Veterinary Assisting Technology

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PROGRAM DESCRIPTIONS AND SUGGESTED COURSE SEQUENCES

AVIATION MAINTENANCE TECHNOLOGY

Aviation Maintenance Technology is an instructional program that prepares individuals to inspect, repair, service, and overhaul aircraft engine components and systems. This program is designed to prepare the student for the Federal Aviation Administration exams for certification as an Aircraft Maintenance Technician.

Industry standards referenced are from the Federal Aviation Regulations, Part 147, Aviation Maintenance Technician Schools (Airframes and Power Plants).

PROGRAM OPTIONS

AVIATION MAINTENANCE TECHNOLOGY 2-YEAR CERTIFICATE OPTION

After completion of the 2-year course of study, a student will receive a 2-year certificate in Aviation Maintenance.

ASSOCIATE OF APPLIED SCIENCE DEGREE OPTION

A student may receive the Associate of Applied Science Degree in Aviation Maintenance Technology by completion of the 2-year certificate program **AND** 15 semester hours of academic electives including the following:

3 sch Math/Science
3 sch Written Communications
3 sch Oral Communications
3 sch Humanities/Fine Arts
3 sch Social/Behavioral Science

___
15 sch total

Suggested Course Sequence*
Aviation Maintenance Technology

FIRST YEAR

First Semester

		Lecture	Lab	Total Clock Hours
3 sch	Aviation Applied Sciences (APT 1113)	42	57	99
3 sch	Aviation Electricity I (APT 1123)	33	40	73
4 sch	Aviation Materials and Processes (APT 1134)	45	65	110
2 sch	Aircraft Servicing and Weight-and-Balance (APT 1142)	28	46	74
3 sch	Maintenance Forms and Records (APT 1153)	27	41	68
2 sch	Reciprocating Engine Theory (APT 1162)	37	0	37
17 sch		212	249	461

Second Semester

		Lecture	Lab	Total Clock Hours
3 sch	Reciprocating Engine Overhaul and Inspection (APT 1213)	28	92	120
2 sch	Turbine Engine Theory (APT 1222)	37	0	37
3 sch	Turbine Engine Overhaul and Inspection (APT 1233)	28	92	120
1 sch	Power Plant Conformity and Airworthiness Inspection (APT 1241)	14	18	32
4 sch	Lubrication and Fuel Metering Systems (APT 1254)	55	68	123
2 sch	Induction, Cooling, and Exhaust Systems (APT 1262)	27	52	79
15 sch		189	322	511

SECOND YEAR

First Semester

		Lecture	Lab	Total Clock Hours
4 sch	Aviation Electricity II (APT 2114)	55	67	122
3 sch	Propellers and Power Plant Review (APT 2123)	36	45	81
5 sch	Structures I (APT 2135)	43	131	174
3 sch	Structures II (APT 2143)	42	59	101
15 sch		176	302	478

Second Semester

		Lecture	Lab	Total Clock Hours
2 sch	Aircraft Controls (APT 2212)	17	42	59
2 sch	Aviation Electricity III (APT 2222)	28	41	69
2 sch	Hydraulic and Pneumatic Power Systems (APT 2232)	18	42	60
3 sch	Landing Gear and Protection Systems (APT 2243)	32	42	74
1 sch	Environment Control (APT 2251)	14	24	38
3 sch	Aircraft Instrumentation Systems (APT 2263)	42	42	84
1 sch	Aircraft Fuel Systems (APT 2271)	18	18	36
2 sch	Airframe Inspection and Review (APT 2282)	14	42	56
16 sch		183	293	476

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

NOTES

1. Local circumstances may require scheduling in a different sequence than presented here.
2. This instructional program must be presented in compliance with Federal Aviation Regulations, Part 147, Aviation Maintenance Technician Schools, effective September 28, 1992. This requires that hours of lecture and laboratory presented in the course descriptions be adjusted to demonstrate performance of the student contact hours required by the Federal Aviation Regulations (FAR). The current FAR requires a minimum of 1,900 clock hours of instruction. The suggested curriculum consists of 1,926 clock hours of combined instructional and testing time.
3. Each objective has been coded to reflect the teaching levels as found in the FAR Part 147, Appendix A. The following teaching levels apply:
   (1) Level 1. This level generally refers to classroom instruction and does not require practical application. Teaching aids or instructional equipment may include charts, books, diagrams, or other visual teaching aids. If an aircraft maintenance technician school chooses to teach Level 1 courses incorporating actual components, the components do not have to be operational.
   (2) Level 2. This teaching level requires some hands-on manipulative skills and their accompanying actual or simulated components/equipment but may be taught primarily in the classroom environment.
   (3) Level 3. This teaching level requires hands-on skills and sufficient and appropriate instructional aids to train the student to develop manipulative skills sufficient to simulate return to service mechanical skills. At this level, the teaching aids must be similar to or be the actual items of equipment on which the student is expected to develop required skill levels. No Level 3 subject can be taught solely by lecture in the classroom; the appropriate training aids and hands-on experience must be used.
4. The minimum passing grade on any exam is 70%.

BANKING AND FINANCE TECHNOLOGY

The Banking and Finance Technology program is a 2-year course of study designed to help present and prospective banking and finance students and employees prepare for and take advantage of the varied career opportunities available to them in the progressive field of financial services.

The program is designed to provide an introduction and an overview of the financial services industry and the opportunities for the student or employee to develop basic financial knowledge and abilities, along with the required competencies and social skills necessary for employment and advancement in the field of finance.

The financial services industry includes banks, savings and loan associations, finance companies, credit unions, and the financial aspects of businesses.

The Standards for Banking and Finance were developed by the Marketing Education Resource Center. The Finance Cluster Standards were specifically used in the curriculum revision.

Articulation Agreement
An articulation agreement will be developed once the secondary Finance and Accounting program is finalized in the spring of 2010.

Suggested Course Sequence*
Banking and Finance Technology

FIRST YEAR

3 sch	Written Communications Elective	3 sch	Approved Elective[H]
3 sch	Microcomputer Applications (BOT 1133)	3 sch	Oral Communications Elective
3 sch	Principles of Banking (BFT 1213)	3 sch	Electronic Spreadsheet (BOT 1813)
3 sch	Related Math Elective**	3 sch	Money and Banking (BFT 1223)
3 sch	Consumer Lending (BFT 1313)	3 sch	Law and Banking Principles (BFT 1233)
		3 sch	Mechanics of Communication (BOT 1713)
15 sch		18 sch	

SECOND YEAR

3 sch	Math/Science Elective	3 sch	Humanities/Fine Arts Elective
3 sch	Principles of Accounting I (ACC 1213)	3 sch	Financial Management (BFT 2533)
3 sch	Bank Teller Operations (BFT 2613)	3–4 sch	Special Project in Banking and Finance Technology (BFT 2914) OR Work-Based Learning [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)]
3 sch	Approved Elective		
3 sch	Business Policy (BFT 2113)	3 sch	Social/Behavioral Science Elective
3 sch	Business Communication (BOT 2813)	4 sch	Professional Development in Financial Institutions (BFT 2444)
18 sch		16–17 sch	

****** Related mathematics elective will be selected from Banking and Finance Math (BFT 1513) or Applied Business Math (BOT 1313) or Merchandising Math (MMT 1413).

[H]APPROVED ELECTIVES

Administrative Office Procedures (BOT 2723)
Principles of Economics (Macroeconomics) (ECO 2113)
Income Tax Accounting (BOT 2423)
Payroll Accounting (BOT 2463)
Principles of Accounting II (ACC 1223)
Banking and Finance Math (BFT 1513)
Business Accounting (BOT 1433)
Computerized Accounting (BOT 2413)
Commercial Lending (BFT 1323)
Business Finance (BFT 2523)
Marketing I (MMT 1113)
Personal Finance (BFT 2713)
Work-Based Learning (WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3))

COMPUTER SERVICING TECHNOLOGY

Computer Servicing Technology is an instructional program that prepares individuals to install, operate, maintain, service, and diagnose operational problems in computer systems arising from mechanical, electrical, and software installation/configuration malfunctions in computer units or systems. Courses in the Computer Servicing Technology program describe the electrical circuits and mechanical devices used in computer construction and their combination into a total computer system. This program is mapped to CompTIA's A+ certification objectives and supports student certification for A+, IC^3, NET+, and CIW.

Academic, workplace, technology, and industry standards are referenced at the end of each course where applicable. The academic and workplace standards are based on the SCANS competencies, and the technology standards are based on the National Educational Technology Standards for Students. The industry standards are taken from the Computing Technology Industry Association, CompTIA A+ Practical Application (2009 edition) objectives, and the CompTIA A+ Essentials (2009 edition) objectives.

The certificate program in Computer Servicing Technology requires the successful completion of a minimum of 34 semester credit hours of required course work above the baseline vompetencies level.

The technical program in Computer Servicing Technology requires successful completion of a minimum of 64 semester credit hours (sch) of required courses for the Associate of Applied Science degree. This total includes a minimum of 15 sch of academic core courses.

Suggested Course Sequence*
Computer Servicing Technology
Certificate

FIRST YEAR

4 sch	Basic Electronics (CST 1114)	3–4 sch	Technical Elective*****
3 sch	Operating Systems (CST 1333)**	4 sch	Digital Electronics (EET 1214)
3 sch	Basic Computer Hardware (CST 1123)***	3 sch	Microcomputer Application Course or Programming Course
4 sch	Networking I (CST 1214)****	4 sch	PC Diagnostics and Troubleshooting (CST 2134)
3 sch	Computer Servicing Lab I (CST 2113)	3 sch	Networking II (CST 2223)******
17 sch		17–18 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Operating Platforms (CPT 1333) may be substituted for Operating Systems (CST 1333).

*** IT Foundations (IST 1124) may be substituted for Basic Computer Hardware (CST 1123)

**** Fundamentals of Data Communications (IST 1134) may be substituted for Networking I (CST 1214).

***** Any other technical course as approved by the instructor

****** Network Components (IST 1223) may be substituted for Networking II (CST 2223).

Suggested Course Sequence*
Computer Servicing Technology
Associate Degree

FIRST YEAR

4 sch	Basic Electronics (CST 1114)**
4 sch	Digital Electronics (EET 1214)
3 sch	Operating Systems (CST 1333)***
3 sch	Written Communications Elective
3 sch	Math/Science Elective
17 sch	

3 sch	Microcomputer Application Course or Programming Course
3–4 sch	Technical Elective********
3 sch	Technical/Related Academic Elective
3 sch	Basic Computer Hardware (CST 1123)****
4 sch	Networking I (CST 1214)*****
16–17 sch	

SECOND YEAR

3 sch	Computer Servicing Lab I (CST 2113)
3 sch	Technical Electives
3 sch	Technical Electives
3 sch	Humanities/Fine Arts Elective
3 sch	Networking II (CST 2223) ******
15 sch	

3 sch	Computer Servicing Lab II (CST 2123)
4 sch	PC Diagnostics and Troubleshooting (CST 2134)
3 sch	Technical Electives
3 sch	Oral Communications Elective
3 sch	Social/Behavioral Science Elective
16 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** DC Circuits (EET 1114) and AC Circuits (EET 1123) may be substituted for Basic Electronics (CST 1114).

*** Operating Platforms (CPT 1333) may be substituted for Operating Systems (CST 1333).

**** IT Foundations (IST 1124) may be substituted for Basic Computer Hardware (CST 1123).

***** Fundamentals of Data Communications (IST 1134) may be substituted for Networking I (CST 1214).

****** Network Components (IST 1223) may be substituted for Networking II (CST 2223).

******* Any other technical course as approved by the instructor

TECHNICAL ELECTIVES

4 sch	DC Circuits (EET 1114)
3 sch	AC Circuits (EET 1123)
3 sch	Fundamentals of Microcomputer Applications (CPT 1113)†
3 sch	Drafting for Electronic/Electrical Technology (EET 1713)
4 sch	Digital Communications I (TCT 2314)
4 sch	Digital Communications II (TCT 2324)
4 sch	Fundamentals of Telecommunications (TCT 1114)
4 sch	Web and Programming Concepts (IST 1154)
3 sch	Web and Development Concepts (WDT 1123)
4 sch	Network Administration Using Novell (IST 1234)
4 sch	Network Administration Using Microsoft Windows Server (IST 1244)
4 sch	Network Administration Using Linux (IST 1254)
4 sch	Solid State Devices and Circuits (EET 1334)
4sch	Linear Integrated Circuits (EET 2334)
4sch	Microprocessors (EET 1324)
4sch	Electronic Communications (EET 2414)
4 sch	Microprocessors (EET 1324)
4 sch	Advanced Network Administration Using Novell (IST 2244)
4 sch	Advanced Network Administration Using Microsoft Windows Server (IST 2254)
4 sch	Advanced Network Administration Using Linux (IST 2264)
3 sch	Survey of Microcomputer Applications (CPT 1323)
4 sch	Interfacing Techniques (EET 2514)
1–3 sch	Special Project [CST 291(1–3)]
1–6 sch	Supervised Work Experience [CST 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [(WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

† May be selected as computer-related elective

RELATED ACADEMIC ELECTIVE

3 sch	Science and Technology (ATE 1113)

CONSTRUCTION EQUIPMENT OPERATION

This postsecondary instructional program prepares individuals to safely operate and perform preventive maintenance on a variety of construction equipment. The program also includes instruction in digging, ditching, sloping, stripping, grading, back filling, clearing, excavating, and handling of materials. An individual successfully completing this program will have entry-level skills for employment as a construction equipment operator.

The curriculum is designed as a two-semester vocational–technical program. A certificate in Construction Equipment Operation will be awarded at the culmination of satisfactory study of the required courses.

Industry standards referenced are from the National Center for Construction Education and Research, Heavy Equipment Operations.

Suggested Course Sequence*
Construction Equipment Operation

FIRST YEAR

2 sch	Safety I (CEV 1212)	2 sch	Safety II (CEV 1222)
3 sch	Service and Preventive Maintenance I (CEV 1313)	3 sch	Service and Preventive Maintenance II (CEV 1323)
6 sch	Equipment Operation I (CEV 1416)	6 sch	Equipment Operation II (CEV 1426)
4 sch	Grade Work I (CEV 1514)	4 sch	Grade Work II (CEV 1524)
15 sch		15 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

DRAFTING AND DESIGN CLUSTER

The Drafting and Design Technology programs of study are designed to provide specialized occupational instruction in all phases of drafting technology in order to prepare students for positions in the drafting field. A combination of class work and laboratory experience is stressed.

Successful completion of a minimum of 64 semester credit hours of course work in a 2-year program leads to an Associate in Applied Science degree. Students who successfully complete a minimum of 46 semester hours in drafting and design technology courses may earn a vocational certificate in general drafting.

The Drafting and Design Cluster curricula allow students to obtain skills and knowledge related to several fields of the drafting and design industry. Options within the curriculum framework include General Drafting, Land Surveying, and Geographical Information Systems Technology. The Architectural Engineering Technology curriculum provides students with specialized skills in the architectural drafting and design field.

The content of this curriculum framework is based on national standards as developed by the American Design and Drafting Association.

Industry standards are based on the American Design Drafting Association Skill Standards.

Suggested Course Sequence*
Drafting and Design Technology
Architectural Engineering Technology/Technician

Associate's Degree

FIRST YEAR

3 sch	Fundamentals of Drafting (DDT 1113)	3 sch	Architectural Design I (DDT 1613)
3 sch	Construction Materials (DDT 1213)	3 sch	Intermediate CAD (DDT 1323)
3 sch	Principles of CAD (DDT 1313)	3 sch	Elective
3 sch	Written Communications Elective	3 sch	Oral Communications Elective
3 sch	Mathematics/Science Elective	3 sch	Restrictive Elective**
15 sch		15 sch	

SECOND YEAR

3 sch	Cost Estimating (DDT 2243)	3 sch	Structural Drafting I (DDT 2233)
3 sch	Advanced CAD (DDT 2343)	3 sch	Civil Drafting (DDT 2153)****
6 sch	Technical Electives****	3 sch	Architectural Design II (DDT 2623)
3 sch	Social/Behavioral Science Elective	3 sch	Restrictive Elective**
3 sch	Humanities/Fine Arts Elective	3 sch	Technical Electives****
18 sch		15 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Restrictive elective includes mathematics, science, or technology.

*** Elementary Surveying (DDT 1413) and Mapping and Topography (DDT 2423) may be taken in lieu of Civil Drafting (DDT 2153).

****ELECTIVES - ARCHITECTURAL ENGINEERING TECHNOLOGY

3 sch	Science and Technology (ATE 1113)
3 sch	Computational Methods for Drafting (DDT 1123)
3 sch	Database Construction and Maintenance (GIT 2113)
3 sch	Fundamentals of Geographical Information Systems (GIS) (GIT 2123)
3 sch	Principles of Image Processing (GIT 2133)
3 sch	Advanced Geographical Information Systems (GIT 2263)
3 sch	Remote Sensing (GIT 2273)
3 sch	Geometric Dimensioning and Tolerancing (DDT 1143)
3 sch	Descriptive Geometry (DDT 1153)
3 sch	Statics and Strength of Materials (DDT 2253)
3 sch	CAD Management (DDT 2353)
3 sch	Machine Drafting I (DDT 1133)
3 sch	Elementary Surveying (DDT 1413)
3 sch	Facilities Planning (DDT 2273)
3 sch	Structural Drafting II (DDT 2213)
3 sch	Mapping and Topography (DDT 2423)
3 sch	Legal Principles of Surveying (CIT 2113/DDT 2433)
3 sch	Advanced Surveying (CIT 2124/DDT 2443)
3 sch	GPS Surveying (CIT 2444/DDT 2463)
3 sch	Pipe Drafting (DDT 2523)
3 sch	Highway Drafting (DDT 2533)
3 sch	Fundamentals of Multimedia (DDT 2713)
1–3 sch	Special Project [DDT 291(1–3)]
1–6 sch	Supervised Work Experience in Drafting and Design Technology [DDT 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [(WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

Note: Any other technical or academic course as approved by the instructor

Suggested Course Sequence*
Drafting and Design Technology
General Drafting

Associate's Degree

FIRST YEAR

3 sch	Fundamentals of Drafting (DDT 1113)	3 sch	Machine Drafting I (DDT 1133)
3 sch	Restrictive Elective**	3 sch	Intermediate CAD (DDT 1323)
3 sch	Principles of CAD (DDT 1313)	3 sch	Construction Materials (DDT 1213)
3 sch	Written Communications Elective	3 sch	Oral Communications Elective
3 sch	Mathematics/Science Elective	3 sch	Elective
15 sch		15 sch	

SECOND YEAR

3 sch	Architectural Design I (DDT 1613)	3 sch	Structural Drafting I (DDT 2233)
3 sch	Advanced CAD (DDT 2343)	3 sch	Civil Drafting (DDT 2153)***
3 sch	Technical Electives****	9 sch	Technical Electives****
3 sch	Humanities/Fine Arts Elective	3 sch	Restrictive Elective**
3 sch	Social/Behavioral Science Elective	18 sch	
15 sch			

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Restrictive elective includes mathematics, science, or technology.

*** Elementary Surveying (DDT 1413) and Mapping and Topography (DDT 2423) may be taken in lieu of Civil Drafting (DDT 2153).

****ELECTIVES - GENERAL DRAFTING

3 sch	Blueprint Reading I (DDT 1513)
3 sch	Blueprint Reading II (DDT 1523)
3 sch	Computational Methods for Drafting (DDT 1123)
3 sch	Science and Technology (ATE 1113)
3 sch	Database Construction and Maintenance (GIT 2113)
3 sch	Fundamentals of Geographical Information Systems (GIS) (GIT 2123)
3 sch	Principles of Image Processing (GIT 2133)
3 sch	Advanced Geographical Information Systems (GIT 2263)
3 sch	Remote Sensing (GIT 2273)
3 sch	Geometric Dimensioning and Tolerancing (DDT 1143)
3 sch	Descriptive Geometry (DDT 1153)
3 sch	Fundamentals of Machining Processes (DDT 1713)
3 sch	Elementary Surveying (DDT 1413)
3 sch	Design for Manufacturing (DDT 1813)
3 sch	Machine Drafting II (DDT 2163)
3 sch	Structural Drafting II (DDT 2213)
3 sch	Cost Estimating (DDT 2243)
3 sch	Statics and Strength of Materials (DDT 2253)
3 sch	Quality Assurance (DDT 2263)
3 sch	Computer Numerical Control (CNC) Drafting (DDT 2363)
3 sch	Mapping and Topography (DDT 2423)
3 sch	Legal Principles of Surveying (CIT 2113/DDT 2433)
3 sch	Advanced Surveying (CIT 2124/DDT 2443)
3 sch	GPS Surveying (CIT 2444/DDT 2463)
3 sch	Pipe Drafting (DDT 2523)
3 sch	CAD Management (DDT 2353)
3 sch	Highway Drafting (DDT 2533)
3 sch	Steel Ship Building and Design (DDT 2543)
3 sch	Architectural Design II (DDT 2623)
3 sch	Fundamentals of Multimedia (DDT 2713)
1–3 sch	Special Project [DDT 291(1–3)]
1–6 sch	Supervised Work Experience in Drafting and Design Technology [DDT 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

Note: Any other technical or academic course as approved by the instructor

Program Description
Land Surveying Option

This program prepares a person for careers in the land-surveying field such as a Professional Land Surveyor, CAD Technician, and Survey Technician. Emphasis is placed on the use of modern survey equipment, drafting software, and the fundamentals and principles of land surveying. Upon successful completion of the curriculum, the graduate will earn an Associate of Applied Science Degree (AAS) and is eligible to pursue a Professional Land Surveyor License in the state of Mississippi. This program will also prepare a student for the Certified Survey Technician (CST) program sponsored by the National Society of Professional Land Surveyors (NSPS). A minimum of 61 semester credit hours is required to receive the Associate of Applied Science Degree in Drafting and Design with an emphasis in Land Surveying.

Suggested Course Sequence*
Drafting and Design Technology
Land Surveying

Associate's Degree

FIRST YEAR

3 sch	Fundamentals of Drafting (DDT 1113)	3 sch	Intermediate CAD (DDT 1323)
3 sch	Principles of CAD (DDT 1313)	3 sch	Elementary Surveying (DDT 1413)
3 sch	Fundamentals of Microcomputer Applications (CPT 1113)	3 sch	Trigonometry (MAT 1213)
3 sch	English Composition I (ENG 1113)	3 sch	Public Speaking I (SPT 1113)
3 sch	College Algebra (MAT 1313)	3 sch	English Composition II (ENG 1123)
15 sch		15 sch	

SECOND YEAR

4 sch	General Physics I with Lab (PHY 2414)	4 sch	General Physics II with Lab (PHY 2424)
3–4sch	Advanced Surveying (CIT 2124/DDT 2443)	3 sch	Legal Principles of Surveying (CIT 2113/DDT 2433)
3 sch	Calculus I (MAT 1613) or Statistics I (MAT 2323)	3 sch	Mapping and Topography (DDT 2423)
3 sch	Humanities/Fine Arts Elective**	3 sch	Social/Behavioral Science Elective**
3 sch	Approved Elective***	3 sch	Approved Elective***
16–17 sch		16 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** As approved by the instructor

*** As approved by the instructor; however, recommended courses include the following:

ACC 1213 Principles of Accounting I
ACC 1223 Principles of Accounting II
BAD 1113 Introduction to Business
BAD 2413 Legal Environment of Business I
BAD 2423 Legal Environment of Business II
BAD 2723 Real Estate law

PHY 1113 Introduction to Astronomy

Suggested Course Sequence*
Drafting and Design Technology
General Drafting

Certificate

FIRST SEMESTER

3 sch	Fundamentals of Drafting (DDT 1113)
3 sch	Principles of CAD (DDT 1313)
3 sch	Machine Drafting I (DDT 1133)
3 sch	Elementary Surveying (DDT 1413)
3 sch	Technical Elective***
15 sch	

SECOND SEMESTER

3 sch	Machine Drafting II (DDT 2163)
3 sch	Architectural Design I (DDT 1613)
3 sch	Intermediate CAD (DDT 1323)
3 sch	Civil Drafting (DDT 2153)**
3 sch	Technical Elective***
15 sch	

THIRD SEMESTER

3 sch	Architectural Design II (DDT 2623)
3 sch	Advanced CAD (DDT 2343)
3 sch	Special Project (DDT 2913)
6 sch	Technical Electives***
15 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Elementary Surveying (DDT 1413) and Mapping and Topography (DDT 2423) may be taken in lieu of Civil Drafting (DDT 2153).

***ELECTIVES - VOCATIONAL CERTIFICATE

3 sch	Blueprint Reading I (DDT 1513)
3 sch	Blueprint Reading II (DDT 1523)
3 sch	Computational Methods for Drafting (DDT 1123)
3 sch	Geometric Dimensioning and Tolerancing (DDT 1143)
3 sch	Descriptive Geometry (DDT 1153)
3 sch	Construction Materials (DDT 1213)
3 sch	Fundamentals of Machining Processes (DDT 1713)
3 sch	Design for Manufacturing (DDT 1813)

3 sch	CAD Management (DDT 2353)
3 sch	Legal Principles of Surveying (CIT 2113/DDT 2433)
3 sch	Advanced Surveying (CIT 2124/DDT 2443)
3 sch	GPS Surveying (CIT 2444/DDT 2463)
3 sch	Structural Drafting I (DDT 2233)
3 sch	Cost Estimating (DDT 2243)
3 sch	Statics and Strength of Materials (DDT 2253)
3 sch	Mapping and Topography (DDT 2423)
3 sch	Pipe Drafting (DDT 2523)
3 sch	Highway Drafting (DDT 2533)
3 sch	Steel Ship Building and Design (DDT 2543)
3 sch	Fundamentals of Multimedia (DDT 2713)
1–6 sch	Supervised Work Experience in Drafting and Design Technology [DDT 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [(WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

Note: Any other technical or academic course as approved by the instructor

Program Description
Geographical Information Systems Technology Option

This program prepares a person for entry-level positions in the geographical information systems field. A geographical information system (GIS) is an integrated database management system used to store, organize, retrieve, and analyze geographical and resource data for decision making. The curriculum includes computer-assisted drafting, map making, database management, surveying, and applications of geographical information systems. GIS technicians work under the supervision of GIS engineers, managers, cartographers, surveyors, and other professionals to store, organize, retrieve, and analyze resource data for planning and decision making. The need for technicians in this area continues to grow with the rapid development and implementation of GIS technology. A minimum of 64 semester credit hours is required to receive the Associate of Applied Science Degree in Geographical Information Systems Technology. Students who complete a minimum of 34 semester hours in the program may be eligible to receive a certificate in Geographical Information Systems.

Suggested Course Sequence*
Drafting and Design Technology
Geographical Information Systems Technology

Certificate

A Certificate of Geographical Information Systems may be awarded to a student who successfully completes the 33 semester credit hours of required courses.

FIRST YEAR

3 sch	Elementary Surveying (DDT 1413)
3 sch	Database Construction and Maintenance (GIT 2113)
3 sch	Fundamentals of Drafting (DDT 1113)
3 sch	Fundamentals of Geographical Information Systems (GIS) (GIT 2123)
3 sch	Principles of CAD (DDT 1313)
15 sch	

3 sch	Advanced Geographical Information Systems (GIT 2263)
3 sch	Cartography and Computer Map Reading (GIT 1253)
3 sch	Mapping and Topography for GIS (GIT 2423)**
3 sch	Remote Sensing (GIT 2273)
6 sch	Technical Electives***
18 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Mapping and Topography (DDT 2423) may be taken in lieu of Mapping and Topography for GIS (GIT 2423).

***APPROVED ELECTIVES

3 sch	Principles of Image Processing (GIT 2133)
3 sch	Intermediate CAD (DDT 1323)
3 sch	Advanced CAD (DDT 2343)
3 sch	Advanced Surveying (CIT 2124/DDT 2443)
3 sch	GPS Surveying (CIT 2444/DDT 2463)
1–3 sch	Special Problem in Geographical Information Systems Technology [GIT 291(1–3)]
1–6 sch	Supervised Work Experience in Geographical Information Systems Technology [GIT 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

Note: Any other technical or academic course as approved by the instructor

Suggested Course Sequence*
Drafting and Design Technology
Geographical Information Systems Technology

Associate's Degree

FIRST YEAR

3 sch	Elementary Surveying (DDT 1413)	3 sch	Descriptive Geometry (DDT 1153)
3 sch	Fundamentals of Drafting (DDT 1113)	3 sch	GPS Surveying (CIT 2444/DDT 2463)
3 sch	Principles of CAD (DDT 1313)	3 sch	Technical Elective**
3 sch	Mathematics/Science Elective	3 sch	Approved Geography Course
3 sch	Written Communications Elective	3 sch	Oral Communications Elective
15 sch		15 sch	

SECOND YEAR

3 sch	Fundamentals of Geographical Information Systems (GIS) (GIT 2123)	3 sch	Advanced Geographical Information Systems (GIT 2263)
3 sch	Remote Sensing (GIT 2273)	3 sch	Approved Course in Geography or Geology
3 sch	Cartography and Computer Map Reading (GIT 1253)	3 sch	Principles of Image Processing (GIT 2133)
3 sch	Database Construction and Maintenance (GIT 2113)	3 sch	Technical Elective**
3 sch	Technical Elective***	3 sch	Social/Behavioral Science
3 sch	Humanities/Fine Arts Elective	15 sch	
18 sch			

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

TECHNICAL ELECTIVES*

3 sch	Science and Technology (ATE 1113)
3 sch	Intermediate CAD (DDT 1323)
3 sch	Advanced CAD (DDT 2343)
3 sch	Advanced Surveying (CIT 2124/DDT 2443)
3 sch	Visual Basic Programming Language (CPT 1214)
3 sch	Trigonometry (MAT 1323)
3 sch	Mapping and Topography for GIS (GIT 2423) or Mapping and Topography (DDT 2423)

1–3 sch	Special Problem in Geographical Information Systems Technology [GIT 291(1–3)]
1–6 sch	Supervised Work Experience in Geographical Information Systems Technology [GIT 292(1–6)]
1–3 sch	Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]

*Note: Any other technical or academic course as approved by the instructor

GRAPHICS AND PRINT COMMUNICATIONS

This 9-month certificate program prepares the student to enter the graphic arts field. Students will learn industry terminology, history, and theory. They will develop fundamental process skills in operations related to graphics and print design, paste-up and layout, film assembly, plate making, press operations, and binding and finishing. The program requires successful completion of a minimum of 32 semester hours of vocational-technical courses to receive a Graphics and Print Communications certificate.

Suggested Course Sequence*
Graphics and Print Communications

Baseline Competencies for Graphics and Print Communications**

FIRST YEAR

2 sch	Overview of Graphics and Print Communications (GPV 1212)	4 sch	Graphic Design II (GPV 1424)
4 sch	Pasteup and Layout (GPV 1314)	2 sch	Digital Printing II (GPV 1752)
4 sch	Graphic Design I (GPV 1414)	3 sch	Press Operations II (GPV 1723)
4 sch	Digital Printing I (GPV 1744)	4 sch	Binding and Finishing Operations (GPV 1814)
2 sch	Press Operations I (GPV 1712)	3 sch	Technical Elective
16 sch		16 sch	

TECHNICAL ELECTIVES:

3-sch	Press Operations III (GPV 1733)
1-3 sch	Special Project in Graphics and Print Communications [GPV 191(1-3)]
1-3 sch	Supervised Work Experience in Graphics and Print Communications [GPV 192(1-3)]
3 sch	Commercial Art Elective
1-3 sch	Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1-3), WBL 192(1-3), WBL 193(1-3), WBL 291(1-3), WBL 292(1-3), and WBL 293(1-3)]

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Graphics and Print Communications program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

HEATING AND VENTILATION AC AND REFRIGERATION TECHNOLOGY

Heating, Ventilation, Air-Conditioning, and Refrigeration Technology is a postsecondary instructional program that prepares individuals to work in engineering departments or private firms installing, maintaining, and operating small or medium air-conditioning, heating, and refrigeration systems. Instruction prepares individuals to work in a commercial setting performing special tasks relating to designing ductwork, assembly, installation, servicing, operation, and maintenance of heating, cooling, and refrigeration systems according to the standards of the American Society of Heating, Refrigeration, and Air-Conditioning Engineers, Inc., Air-Conditioning Contractors of America (ACCA), Air-Conditioning Heating Refrigeration Institute (AHRI), and others. Included are air-conditioning, heating, and refrigeration devices; equipment, techniques, and systems; and maintenance and operation of these systems.

Industry standards referenced are from the *Best Practices for Contren Learning Series*, National Center for Construction Education and Research.

PROGRAM REQUIREMENTS

Heating, Ventilation, Air-Conditioning, and Refrigeration Technology is an articulated technical program designed to provide its students with technical skills. Entry into the program is based upon mastery of skills that are taught in secondary Heating and Air-Conditioning programs. Students who do not possess such skills must do so in order to graduate from the program. The technical program consists of baseline competencies skills that may be obtained in a secondary program or at the community- or junior-college level and technical skills and academics that must be obtained at the community- or junior-college level.

The curriculum for Heating, Ventilation, Air-Conditioning, and Refrigeration Technology is based upon data as collected from curricula guides, input from the business, national standards, and a revision team. The listing of tasks within these documents served as baseline data for the development of this curriculum. The task list used in this curriculum is based upon the following assumptions:

1. In all areas, appropriate theory, safety, and support instruction will be provided for each task. It is essential that all instruction include use of the appropriate equipment needed to accomplish certain tasks. It is also assumed that each student has received instruction to locate and use current reference materials from publications that present manufacturers' recommended or required specifications and procedures for doing the various tasks.
2. The individual program should have written and detailed evaluation standards for each task covered in the curriculum. Learning progress of students should be monitored and evaluated against these stated standards. A system that informs all students of their progress throughout the program should be in place.

3. It is recognized that individual courses will differ across the technical programs. The development of appropriate learning activities and tests will be the responsibility of the individual program.
4. These standards require that tasks contained in the list be included in the program to validate that the program is meeting the needs of the business.
5. Students will be responsible for acquiring necessary certifications as required for employment in the HVACR industry.

The curriculum for Heating, Ventilation, Air-Conditioning, and Refrigeration Technology is designed to serve as the core curriculum for approximately 75% of each course at the postsecondary level. The remaining 25% of each course is to be added at the local level based upon needs of students and area employers.

The technical program in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology requires a minimum of 66 semester credit hours (sch) beyond the baseline competencies. Fifteen semester credit hours of academic core courses are included in this minimum.

A vocational certificate in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology requires a minimum of 54 semester credit hours (sch) beyond the baseline competencies.

Suggested Course Sequence*
Heating, Ventilation, Air-Conditioning, and Refrigeration Technology

Baseline Competencies for Heating, Ventilation, Air-Conditioning, and Refrigeration Technology**

ASSOCIATE'S DEGREE

FIRST YEAR

5 sch	Basic Compression Refrigeration (ACT 1125)
3 sch	Electricity for Heating, Ventilation, Air-Conditioning, and Refrigeration (ACT 1713)
3 sch	Tools and Piping (ACT 1133)
3 sch	Approved Elective***
3 sch	Academic Elective††
17 sch	

3 ch	Refrigeration System Components (ACT 1313)
3 sch	Professional Service Procedures (ACT 1813)
3 sch	Controls (ACT 1213)
3 sch	Approved Elective
3 sch	Academic Elective††
15 sch	

SECOND YEAR

4 sch	Air-Conditioning I (ACT 2414)
3 sch	Heating Systems (ACT 2513)
4 sch	Heat Load and Air Properties (ACT 2624)
3 sch	Academic Elective††
3 sch	Academic Elective††
17 sch	

4 sch	Air-Conditioning II (ACT 2424)
4 sch	Commercial Refrigeration (ACT 2324)
3 sch	Refrigerant, Retrofit, and Regulations (ACT 2433)
3 sch	Approved Elective***
3 sch	Academic Elective††
17 sch	

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Heating and Air-Conditioning program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

*** APPROVED ELECTIVES

Industrial Maintenance Blueprint Reading (IMM 1132)
Business Accounting (BOT 1433)
Fundamentals of Microcomputer Applications (CPT 1113)
or any Computer Applications elective†
Fundamentals of Drafting (DDT 1114)
Fundamentals of Electronics (EET 1192)
Programmable Logic Controllers (ELT 2613)
Blueprint Reading (MST 1413)
Welding Elective (OPEN)
Sheet Metal Elective (OPEN)
Special Project in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology [ACT 291(1–3)]
Supervised Work Experience in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology [ACT 292(1–6)]
Work-Based Learning I, II, III, IV, V, VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]
Any other technical or academic course as approved by the instructor

† COMPUTER-RELATED ELECTIVE

Computer Fundamentals for Electronics/Electrical (EET 1613) †
Fundamentals of Microcomputer Applications (CPT 1113) †
Introduction to Computer Concepts (CSC 1113) †
Any other computer-related technical or academic course as approved by the instructor

†† ACADEMIC ELECTIVES (SACS APPROVED) ††

Written Communications Elective††
Math/Science††
Humanities/Fine Arts††
Oral Communications††
Social/Behavioral Science††

INDUSTRIAL MAINTENANCE TRADES

The Industrial Maintenance Trades curriculum is a career–technical program designed to prepare students for entry-level employment as multi-skilled maintenance technicians. Industrial maintenance trade technicians are responsible for assembling, installing, and maintaining and repairing machinery used in the manufacturing or industrial environment. Students receive basic instruction in a wide variety of areas including safety, machinery maintenance and troubleshooting/service, blueprint reading, basic welding and cutting operations, basic machining operations, fundamentals of piping and hydro-testing, and fundamentals of industrial electricity.

Certificate programs in Industrial Maintenance Trades require a minimum of 30 semester credit hours. The courses for a vocational certificate may be taught as open-entry–open-exit courses, in which case the courses will be taught as laboratory classes only. The technical program in Industrial Maintenance Trades Technology requires a minimum of 64 semester credit hours. Fifteen semester credit hours of academic core courses are included in the technical program.

Industry standards referenced are from the Best Practices for Contren Learning Series, National Center for Construction Education and Research.

Suggested Course Sequence*
Industrial Maintenance Trades

ONE-YEAR VOCATIONAL CERTIFICATE

Baseline Competencies for Industrial Maintenance Trades**

FIRST YEAR

2 sch	Industrial Maintenance Safety (IMM 1112)	4 sch	Principles of Piping and Hydro-Testing (IMM 1614)
2 sch	Industrial Maintenance Math and Measurement (IMM 1122)	4–6 sch	Maintenance Welding and Metals (IMM 1734) OR Shielded Metal Arc Welding I (WLV 1116)
2 sch	Industrial Maintenance Blueprint Reading (IMM 1132)	3 sch	Advanced Industrial Electricity for Industrial Maintenance Mechanics (IMM 1823)
3 sch	Industrial Hand Tools and Mechanical Components (IMM 1213)	4–7 sch	Approved Electives*** and/or Computer-Related Elective†
3 sch	Industrial Electricity for Industrial Maintenance Mechanics (IMM 1813)		
3–6 sch	Approved Electives*** and/or Computer-Related Elective†	15–20 sch	
15–18 sch			

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Industrial Maintenance Trades program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

*** APPROVED ELECTIVES
Advanced Industrial Electricity for Industrial Maintenance Mechanics (IMM 1823)
Advanced Pipe Welding (WLV 1252)
Blueprint Reading (MST 1413)
Blueprint Reading/Planning in Residential Installation (ELT 1263)
Commercial and Industrial Wiring (IMM 1143)
Equipment Installation and Alignment (IMM 1515)
Equipment Maintenance, Troubleshooting, and Repair (IMM 2114)
Fundamentals of Drafting (DDT 1114)
Fluid Power (INT 1214)
Fundamentals of Electricity (ELT 1192)

Gas Metal Arc Welding (WLV 1124)
Gas Tungsten Arc Welding (WLV 1136)
Machine Drafting I (DDT 1133)
Machine Tool Mathematics (MST 1313)
Methods of Layout (IMM 1713)
Motor Maintenance and Troubleshooting (ELT 1223)
Motor Control Systems (ELT 1413)
Precision Layout (MST 1613)
Preventive Maintenance and Service of Equipment (IMM 1524)
Principles of CAD (DDT 1313)
Principles of Hydraulics and Pneumatics (IMM 1314)
Pipe Welding (WLV 1155)
Programmable Logic Controllers (ELT 2613)
Power Machinery I (MST 1114–6)
Power Machinery II (MST 1124–6)
Power Tool Applications (IMM 1224)
Pump and Valve Operations (IMM 1415)
Residential/Light Commercial Wiring (ELT 1113)
Shielded Metal Arc Welding I (WLV 1116)
Special Project in Industrial Maintenance Mechanics [IMM 191(1–3)]
Structural Repair (IMM 1723)
Supervised Work Experience in Industrial Maintenance Mechanics [IMM 192(1–6)]
Switching Circuits for Residential, Commercial, and Industrial Applications (ELT 1273)
Welding Metallurgy (WLV 2812)
Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]
Any other technical or academic course as approved by the instructor

† COMPUTER-RELATED ELECTIVES
Computer Fundamentals for Electronics/Electrical (EET 1613) †
Fundamentals of Microcomputer Applications (CPT 1113) †
Introduction to Computer Concepts (CSC 1113) †
Any other technical or academic course as approved by the instructor

Suggested Course Sequence*
Industrial Maintenance Trades

ASSOCIATE DEGREE

Baseline Competencies for Industrial Maintenance Trades**

FIRST YEAR

2 sch	Industrial Maintenance Safety (IMM 1112)
2 sch	Industrial Maintenance Math and Measurement (IMM 1122)
2 sch	Industrial Maintenance Blueprint Reading (IMM 1132)
3 sch	Industrial Hand Tools and Mechanical Components (IMM 1213)
3 sch	Industrial Electricity for Industrial Maintenance Mechanics (IMM 1813)
1–6 sch	Approved Electives **** and/or Computer-Related Elective†
3 sch	Academic Elective††
16–21 sch	

4 sch	Principles of Piping and Hydro-Testing (IMM 1614)
4–6 sch	Maintenance Welding and Metals (IMM 1734) OR Shielded Metal Arc Welding I (WLV 1116)
3 sch	Advanced Industrial Electricity for Industrial Maintenance Mechanics (IMM 1823)
1–6 sch	Approved Electives**** and/or Computer-Related Elective†
3 sch	Academic Elective††
15–22 sch	

SECOND YEAR

4 sch	Equipment Maintenance, Troubleshooting, and Repair (IMM 2114)
4 sch	Principles of Hydraulics and Pneumatics (IMM 1314)***
6–8 sch	Approved Elective**** and/or Computer-Related Elective†
3 sch	Academic Elective††
17–19 sch	

5 sch	Equipment Installation and Alignment (IMM 1515)
5–8 sch	Approved Elective**** and/or Computer-Related Elective†
3 sch	Academic Elective††
3 sch	Academic Elective††
16–19 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Industrial Maintenance Trades program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

*** Fluid Power (INT 1214) **or** Principles of Hydraulics and Pneumatics (ELT 1614) **or** Industrial Hydraulics for Electrical Technology (ELT1363) **and** Industrial Pneumatics for Electrical Technology (ELT1373) may be taken instead of Principles of Hydraulics and Pneumatics (IMM 1314).

**** APPROVED ELECTIVES
Advanced Industrial Electricity for Industrial Maintenance Mechanics (IMM 1823)
Advanced Pipe Welding (WLV 1252)
Blueprint Reading (MST 1413)
Blueprint Reading/Planning in Residential Installation (ELT 1263)
Commercial and Industrial Wiring (IMM 1143)
Equipment Installation and Alignment (IMM 1515)
Equipment Maintenance, Troubleshooting, and Repair (IMM 2114)
Fundamentals of Drafting (DDT 1114)
Fluid Power (INT 1214)
Fundamentals of Electricity (ELT 1192)
Gas Metal Arc Welding (WLV 1124)
Gas Tungsten Arc Welding (WLV 1136)
Machine Drafting I (DDT 1133)
Machine Tool Mathematics (MST 1313)
Methods of Layout (IMM 1713)
Motor Maintenance and Troubleshooting (ELT 1223)
Motor Control Systems (ELT 1413)
Precision Layout (MST 1613)
Precision Machining Operations (IMM 1235)
Preventive Maintenance and Service of Equipment (IMM 1524)
Principles of CAD (DDT 1313)
Principles of Hydraulics and Pneumatics (IMM 1314)
Pipe Welding (WLV 1155)
Programmable Logic Controllers (ELT 2613)
Power Machinery I (MST 1114-6)
Power Machinery II (MST 1124-6)
Power Tool Applications (IMM 1224)
Pump and Valve Operations (IMM 1415)
Residential/Light Commercial Wiring (ELT 1113)
Shielded Metal Arc Welding I (WLV 1116)
Special Project in Industrial Maintenance Mechanics [IMM 191(1–3)]

Structural Repair (IMM 1723)
Supervised Work Experience in Industrial Maintenance Mechanics [IMM 192(1–6)]
Switching Circuits for Residential, Commercial, and Industrial Applications (ELT 1273)
Welding Metallurgy (WLV 2812)
Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), WBL 293(1–3)]
Any other technical or academic course as approved by the instructor

† COMPUTER-RELATED ELECTIVES
Computer Fundamentals for Electronics/Electrical (EET 1613) †
Fundamentals of Microcomputer Applications (CPT 1113) †
Introduction to Computer Concepts (CSC 1113) †
Any other technical or academic course as approved by the instructor

†† ACADEMIC ELECTIVES (SACS APPROVED) ††
Written Communications Elective††
Math/Science††
Humanities/Fine Arts††
Oral Communications††
Social/Behavioral Science††

MEAT MERCHANDISING TECHNOLOGY

The Meat Merchandising Technology program is designed to prepare the student for entry-level employment in the various related phases of processing, marketing, and merchandising of meats; catering, food preparation; and value-added products. Students are given an opportunity to master the skills necessary for success in meat merchandising, which includes slaughtering, chilling, aging, quartering, and cutting and/or inspecting pork, beef, lamb, poultry, goats, wild game, and fish.

Mastery of the competencies listed in the Food Safety course will prepare the student to take the National Restaurant Association's ServSafe exam to become ServSafe Food Safety certified.

Industry standards referenced are based on the National Restaurant Association's *ServSafe Certification*.

Suggested Course Sequence*
Meat Merchandising Technology

FIRST YEAR

4 sch	Fundamentals of Meat Merchandising (MTV 1114)	4 sch	Display Pricing and Marketing Techniques I (MTV 1314)
4 sch	Identification of Wholesale and Retail Cuts (MTV 1214)	4 sch	Display Pricing and Marketing Techniques II (MTV 1324)
4 sch	Preparation of Wholesale and Retail Cuts (MTV 1224)	4 sch	Advanced Meat Merchandising I (MTV 1414)
4 sch	Merchandising of Poultry, Fish, Seafood, and Smoked Meats (MTV 1234)	4 sch	Advanced Meat Merchandising II (MTV 1424)
		1 sch	Food Safety (MTV 1522)
16 sch		17 sch	

SUMMER SEMESTER

4 sch	Catering, Food Preparation, and Value-Added Products (MTV 1514)
1–6 sch	Vocational–Technical Elective**
5–10 sch	

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

APPROVED ELECTIVES**

Introductory Computer Course
Work-Based Learning I, II, III, IV, V, and VI [WBL 191(1-3), WBL 192(1-3), WBL 193(1-3), WBL 291(1-3), WBL 292(1-3), and WBL 293(1-3)]

PARALEGAL TECHNOLOGY

The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a 2-year program of study that requires courses in the career–technical core, designated areas of concentration, and the academic core. The Associate of Applied Science Degree is earned upon successful completion of program.

The curriculum is based on standards developed from the National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of this publication was collected from a review of related literature and from surveys of local experts in business, industry, and education.

Industry standards are based on the *National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections*.

Articulation
Articulation credit from Secondary Business and Computer Technology (CIP Code 52.0407 – Business/Office Automation/Technology) to Postsecondary Paralegal Technology (CIP Code 22.0302 – Legal Assistant/Paralegal) will be awarded beginning with the spring semester of 2011. Courses to be articulated include BOT 1133 – Microcomputer Applications.

Articulated Secondary Course	Articulated Postsecondary Course
Business and Computer Technology	BOT 1133 – Microcomputer Applications

Suggested Course Sequence*
Paralegal Technology

Baseline Competencies for Paralegal Technology**

FIRST YEAR

3 sch	Written Communications Elective	3 sch	Humanities/Fine Arts Elective
3 sch	Microcomputer Applications (BOT 1133)	3 sch	Family Law (LET 1513)
3 sch	Introduction to Law (LET 1113)	3 sch	Legal Research (LET 1213)
3 sch	Elective	3 sch	Wills and Estates (LET 1523)
3 sch	Elective	3 sch	Elective ***
3 sch	Mechanics of Communications (BOT 1713)		
18 sch		15 sch	

SECOND YEAR

3 sch	Math/Science Elective	3 sch	Oral Communications Elective
3 sch	Real Property I (LET 2453)	3 sch	Criminal Justice Elective
3 sch	Civil Litigation I (LET 2313)	3 sch	Civil Litigation II (LET 2333
3 sch	Legal Writing (LET 1713)	3 sch	Real Property II (LET 2463),
3 sch	Elective***	3 sch	Torts (LET 2323)
		3 sch	Social/Behavioral Science Elective
15 sch		18 sch	

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Secondary Business and Computer Technology program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

*** Internship for Paralegal (LET 2923), Law Office Management (LET 2633), Bankruptcy (LET 2523), Contracts (LET 2343), Criminal Law and Procedures (LET 2353), Special Problem in Paralegal Technology [LET 291 (1–3)], or other instructor-approved related technical course or academic course

**** Prior to enrollment in Document Formatting and Production (BOT 1113), students will be required to key straight-copy material at a minimum of 35 GWPM, on a 5-minute timed writing, with a maximum of 1 error per minute. Students who do not demonstrate this level of proficiency will be required to enroll in Introduction to Keyboarding (BOT 1013).

Vocational–Technical Elective

Law Office Management (LET 2633)
Internship for Paralegal (LET 2923)
Bankruptcy (LET 2523)
Contracts (LET 2343)
Criminal Law and Procedures (LET 2353)
Special Problems in Paralegal Technology [LT 291 (1-3)]
Legal Environment of Business (BAD 2413)
Business Communications (BOT 2813)
Document Formatting and Production (BOT 1113)
Instructor Approved Elective

PHYSICAL THERAPIST ASSISTANT

The Physical Therapist Assistant (PTA) curriculum is a 2-yr program of study that prepares a physical therapist assistant to perform interventions under the supervision of physical therapists (PTs) in an ethical, legal, safe, and effective manner. These paraprofessionals enhance the delivery of physical therapy services by providing delegated interventions, assisting the PT with data collection, communicating with other members of the health-care delivery team, interacting with members of the patient's family and caregivers, and working cooperatively with other health care providers. Physical therapist assistants participate with the PT in teaching other health-care providers, documenting patient interventions, and providing psychosocial support for patients and their families and caregivers with recognition of individual, cultural, and economic differences.

This program prepares the graduate to practice in hospitals, clinics, and other health-care facilities as a member of the health-care team. In Mississippi, physical therapist assistants are licensed by the Mississippi State Board of Physical Therapy.

This curriculum conforms to standards as published by the American Physical Therapy Association. In addition to the General Admission Requirements of the college, each PTA program has specific additional program admission requirements.

Industry standards are based on the *Evaluative Criteria for Accreditation of Education Programs for the Preparation of Physical Therapist Assistants*.

Suggested Course Sequence I*
Physical Therapist Assistant

FIRST YEAR

3 sch	Math/Science Elective	3 sch	Oral Communications Elective
3 sch	Written Communications Elective	4 sch	Anatomy and Physiology II (BIO 1524)
4 sch	Anatomy and Physiology I (BIO 1514)	3 sch	Fundamental Skills for Physical Therapist Assistants (PTA 1213)
3 sch	Social/Behavioral Science Elective†	4 sch	Kinesiology (PTA 1314)
3 sch	Fundamental Concepts of Physical Therapy (PTA 1123)	1–2 sch	PTA Elective (School option) ††
1–3 sch	PTA Elective (School option) ††		
17–19 sch		15–16 sch	

SUMMER TERM (8 WEEKS)
(Two 4-week sessions)

4 sch	Therapeutic Modalities (PTA 1224)
4 sch	Therapeutic Exercise and Rehabilitation I (PTA 1324)
3 sch	Humanities/Fine Arts Elective
11 sch	

SECOND YEAR

3 sch	Clinical Education I (PTA 2413)	3 sch	Physical Therapy Seminar (PTA 2523)
4 sch	Electrotherapy (PTA 2234)	4 sch	Clinical Education II (PTA 2424)
4 sch	Therapeutic Exercise and Rehabilitation II (PTA 2334)	4 sch	Clinical Education III (PTA 2434)
3 sch	Medical Conditions and Related Pathology (PTA 2513)	4 sch	Clinical Education IV (PTA 2444)
1 sch	PTA Elective (School Option) ††	15 sch	
15 sch			

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

APPROVED ELECTIVES

Oral Communication (SPT 1113)

† General Psychology (PSY 1513) is required by national certification.

†† Health Care Experience I (PTA 1111)

†† PTA Practicum I (PTA 1132)

†† PTA Practicum II (PTA 1143)

†† Health Care Experience II (PTA 1151)

†† Seminar I (PTA 1911)

†† Seminar II (PTA 1921)

†† Seminar III (PTA 2911)

Any other instructor-approved electives

Suggested Course Sequence II*
Physical Therapist Assistant

FIRST YEAR

3 sch Math/Science Elective
3 sch Written Communications Elective
4 sch Anatomy & Physiology I (BIO 1514)
3 sch Oral Communications Elective
3 sch Social/Behavioral Science Elective†
1–3 sch PTA Elective (School option) ††

17–19 sch

3 sch Humanities/Fine Arts Elective
6 sch Electives
4 sch Anatomy & Physiology II (BIO 1524)
1–3 sch PTA Elective (School option) ††

14–16 sch

FIRST SUMMER TERM

3 sch Fundamental Concepts of Physical Therapy (PTA 1123)
3 sch Fundamental Skills for Physical Therapist Assistants (PTA 1213)

6 sch

SECOND YEAR

4 sch Kinesiology (PTA 1314)
4 sch Therapeutic Modalities (PTA 1224)
4 sch Therapeutic Exercise and Rehabilitation I (PTA 1324)
3 sch Clinical Education I (PTA 2413)
1 sch PTA Elective (School Option) ††

16 sch

4 sch Electrotherapy (PTA 2234)
4 sch Therapeutic Exercise and Rehabilitation II (PTA 2334)
3 sch Medical Conditions and Related Pathology (PTA 2513)
4 sch Clinical Education II (PTA 2424)
3 sch Physical Therapy Seminar (PTA 2523)

18 sch

SECOND SUMMER TERM

4 sch Clinical Education III (PTA 2434)
4 sch Clinical Education IV (PTA 2444)

_____
8 sch

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

APPROVED ELECTIVES

Oral Communication (SPT 1113)
† General Psychology (PSY 1513) is required by national certification.
†† Health Care Experience I (PTA 1111)
†† PTA Practicum I (PTA 1132)
†† PTA Practicum II (PTA 1143)
†† Health Care Experience II (PTA 1151)
†† Seminar I (PTA 1911)
†† Seminar II (PTA 1921)
†† Seminar III (PTA 2911)
Any other instructor-approved electives

RESIDENTIAL CARPENTRY TECHNOLOGY

Residential Carpentry Technology is an instructional program designed to prepare students for entry level into the residential carpentry trade. The residential carpentry program offers learning experiences in blueprint reading, estimating, building, installing, and repairing structural units.

The Associate of Applied Science (AAS) degree in Residential Carpentry may be awarded to a student who successfully completes the 2 years or 65 semester credit hours of required courses. Included in the requirements are 15 semester credit hours of academic courses.

Certification by the National Center for Construction Education (NCCER):

This curriculum has been aligned to modules in the Contren program as endorsed by the National Center for Construction Education and Research (NCCER). Students who study this curriculum using the Contren materials under the supervision of an instructor who has been certified by the NCCER are eligible to be tested on each module. Students who successfully pass these tests may be certified to the NCCER by the instructor and will receive documentation from NCCER. Secondary-level programs of Carpentry and Building Trades cover the NCCER Core and Level I. Postsecondary 1-year certificate programs cover subjects in Level II, and 2-year certificate programs cover Level III topics.

Industry standards are based on the Contren Best Practices for Residential Carpentry Programs.

Suggested Course Sequence*
1-Year Certificate for Residential Carpentry

Baseline Competencies for Residential Carpentry**

FIRST YEAR

6 sch	Foundations (CAV 1116)
6 sch	Floor and Wall Framing (CAV 1236)
3 sch	Blueprint Reading (CAV 1133)
3 sch	Vocational–Technical Electives†
18 sch	

5 sch	Ceiling and Roof Framing (CAV 1245)
3 sch	Roofing (CAV 1413)
3 sch	Exterior Finishing (CAV 1513)
6 sch	Interior Finishing and Cabinet Making (CAV 1316)
17 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the secondary Residential Carpentry program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

†APPROVED ELECTIVES

3 sch	Science and Technology (ATE 1113)
3 sch	Fundamentals of Microcomputer Applications (CPT 1113) (or any other suitable computer science course approved by the instructor)
3 sch	Principles of CAD (DDT 1313)
3 sch	Forming Applications (CAV 1123)
3 sch	Advanced Cabinet Making (CAV 2133)
3 sch	Advanced Interior Finishing (CAV 2313)
1–3 sch	Special Problem in Residential Carpentry Technology [CAV 291(1–3)]
1–6 sch	Supervised Work Experience in Residential Carpentry Technology [CAV 292(1–6)]
1–3 sch	Work-Based Learning [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)]

Suggested Course Sequence*
2-Year Certificate for Residential Carpentry

Baseline Competencies for Residential Carpentry**

FIRST YEAR

6 sch	Foundations (CAV 1116)
6 sch	Floor and Wall Framing (CAV 1236)
3 sch	Blueprint Reading (CAV 1133)
3 sch	Vocational–Technical Electives†
18 sch	

5 sch	Ceiling and Roof Framing (CAV 1245)
3 sch	Roofing (CAV 1413)
3 sch	Exterior Finishing (CAV 1513)
6 sch	Interior Finishing and Cabinet Making (CAV 1316)
17 sch	

SECOND YEAR

3 sch	Construction Materials (DDT 1213)
3 sch	Fundamentals of Drafting (DDT 1113)
6 sch	Vocational–Technical Electives†
12 sch	

3 sch	Principles of Multi-Family and Light Commercial Construction (CAV 2113)
3 sch	Cost Estimating (DDT 2243)
6 sch	Vocational–Technical Electives†
12 sch	

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the secondary Residential Carpentry program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

†APPROVED ELECTIVES

3 sch	Science and Technology (ATE 1113)
3 sch	Fundamentals of Microcomputer Applications (CPT 1113) (or any other suitable computer science course approved by the instructor)
3 sch	Forming Applications (CAV 1123)
3 sch	Advanced Cabinet Making (CAV 2133)
3 sch	Advanced Interior Finishing (CAV 2313)
3 sch	Principles of CAD (DDT 1313)
1–3 sch	Special Problem in Residential Carpentry Technology [CAV 291(1–3)]

1–6 sch Supervised Work Experience in Residential Carpentry Technology [CAV 292(1–6)]

1–3 sch Work-Based Learning [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)]

Suggested Course Sequence*
2-Year Associate's Degree for Residential Carpentry

Baseline Competencies for Residential Carpentry**

FIRST YEAR

6 sch Foundations (CAV 1116)
6 sch Floor and Wall Framing (CAV 1236)
3 sch Blueprint Reading (CAV 1133)
3 sch Math/Science Elective

18 sch

5 sch Ceiling and Roof Framing (CAV 1245)
3 sch Roofing (CAV 1413)
3 sch Exterior Finishing (CAV 1513)
6 sch Interior Finishing and Cabinet Making (CAV 1316)

17 sch

SECOND YEAR

3 sch Written Communications Elective
3 sch Oral Communications Elective
3 sch Construction Materials (DDT 1213)
3 sch Fundamentals of Drafting (DDT 1113)
3 sch Vocational–Technical Electives†

15 sch

3 sch Humanities/Fine Arts Elective
3 sch Social/Behavioral Science Elective
3 sch Principles of Multi-Family and Light Commercial Construction (CAV 2113)
3 sch Cost Estimating (DDT 2243)
2 sch Vocational–Technical Electives†

14 sch

* Students who lack entry-level skills in mathematics, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the secondary Residential Carpentry program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

†APPROVED ELECTIVES

3 sch Science and Technology (ATE 1113)
3 sch Fundamentals of Microcomputer Applications (CPT 1113) (or any other suitable computer science course approved by the instructor)
3 sch Forming Applications (CAV 1123)
3 sch Advanced Cabinet Making (CAV 2133)
3 sch Advanced Interior Finishing (CAV 2313)
3 sch Principles of CAD (DDT 1313)

1–3 sch Special Problem in Residential Carpentry Technology [CAV 291(1–3)]
1–6 sch Supervised Work Experience in Residential Carpentry Technology [CAV 292(1–6)]
1–3 sch Work Based Learning [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1– 3), WBL 292(1–3), and WBL 293(1–3)]

SURGICAL TECHNOLOGY

Surgical Technology is an instructional program that prepares an individual to serve as a member of the surgical team to work with surgeons, anesthesiologists, certified registered nurse anesthetists, registered nurses, and other surgical personnel in delivering patient care and assuming appropriate responsibilities before, during, and after surgery. This program includes the education of all aspects of surgical technology including the role of second assistant and circulator.

Graduates of the 12-month program will be awarded the Certificate of Surgical Technology. The Associate of Applied Science Degree in Surgical Technology will be awarded to the successful graduate of the 24-month program. Qualified graduates will be required to apply to the National Board of Surgical Technology and Surgical Assisting (formerly the LCC-ST) to become a Certified Surgical Technologist.

Industry standards are based on the *Core Curriculum for Surgical Technology*.

Suggested Course Sequence*
Surgical Technology

Baseline Competencies for Surgical Technology**

FIRST YEAR (CERTIFICATE)

3 sch	Fundamentals of Surgical Technology (SUT 1113)
6 sch	Principles of Surgical Technique (SUT 1216)
4 sch	Surgical Anatomy (SUT 1314)
3 sch	Surgical Microbiology (SUT 1413)
3 sch	Written Communications Elective
19 sch	

8 sch	Basic and Related Surgical Procedures (SUT 1518)
8 sch	Specialized Surgical Procedures (SUT 1528)
16 sch	

SUMMER TERM (8 weeks)

8 sch Advanced Surgical Procedures (SUT 1538)

SECOND YEAR (TECHNICAL)

3 sch	Oral Communications Elective
3 sch	Humanities/Fine Arts Elective
3 sch	Approved Electives****
4 sch	Anatomy and Physiology I (BIO 1514 or 2514)***
3 sch	Math/Science Elective
16 sch	

4 sch	Microbiology (BIO 2924)
3 sch	Social/Behavioral Science Elective
3 sch	Approved Electives****
4 sch	Anatomy and Physiology II (BIO 1524 or 2524)***
14 sch	

* Students who lack entry-level skills in math, English, science, and so forth will be provided related studies.

** Baseline competencies are taken from the high school Allied Health program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

*** Each institution can decide locally which Anatomy and Physiology sequence to accept based on its college requirements.

****APPROVED ELECTIVES

General Chemistry I (CHE 1213) with General Chemistry Laboratory I (CHE 1211)
General Biology I (BIO 1134)
General Biology II (BIO 1144)
Algebra (MAT 1313 or higher)
Child Psychology (EPY 2513)
Adolescent Psychology (EPY 2523)
Human Growth and Development (EPY 2533)
Nutrition (FCS 1253)
Personal and Community Health I (HPR 1213)
Personal and Community Health II (HPR 1223)
Introduction to Sociology (SOC 2113)
Marriage and Family (SOC 2143)
Certification and Role Transition (SUT 1703)
Concepts of Microcomputer Applications (CPT 1113)
Computer Concepts (CSC 1113)
Business Management and Microcomputers (BAD 2533)
General Psychology (PSY 1513)
Medical Office Terminology I (BOT 1613)
Medical Office Terminology II (BOT 1623)
First Aid/CPR (HPR 2213)

VETERINARY ASSISTING TECHNOLOGY

Program Description: The Veterinary Technology program is a 2-yr program offered by the Agriculture Department of Hinds Community College. This program is accredited by the American Veterinary Medical Association. Graduates may become a certified veterinary technician upon passing the certification examination offered by the Mississippi Veterinary Medical Board. Employment opportunities for veterinary technicians include small and large animal practices, medical research, pharmaceutical research, wildlife rehabilitation, humane societies, zoological parks, and government agencies. **Applicants must have attained level 3 math standing prior to admission to the program.** Students successfully completing the program are prepared to enter various animal technology careers such as Veterinary Technician (Animal Health) in small animal practice, small animal emergency practice, mixed animal practice, large animal practice, equine practice, and food animal practice. Veterinary Technology programs may be accredited by the American Veterinary Medical Association. Graduates may become registered veterinary technicians through the Mississippi Board of Veterinary Medicine.

Graduates would also be prepared for the following:

(1) Taking the Technology Laboratory Animal Technician certification examination to become an assistant laboratory animal technician
(2) Taking the Laboratory Animal Technician certification examination after attaining assistant laboratory animal technician certification
(3) Taking the Laboratory Animal Technologist certification examination after attaining laboratory animal technician certification and completing 4 years of work experience in a laboratory animal facility

After successfully completing the program, the student will be awarded an Associate of Applied Science Degree from the community/junior college.

Industry standards are based on the *American Veterinary Medical Association Committee on Veterinary Technician Education and Activities Skills List.*

Campus Locations: Raymond –601.857.3456
Internship – Approved practice or veterinary facility

Suggested Course Sequence
Veterinary Technology

FIRST YEAR
Completed at Hinds Community College – Raymond Campus

3 sch	Vet Lab 1 (VAT 1113)	1 sch	Vet Math (VAT 1111)
2 sch	Office Procedures/Vet Terminology (VAT 1122)	3 sch	Vet Lab 2 (VAT 1123)
2 sch	Animal Restraint and Medication (VAT 1212)	4 sch	Animal Anatomy & Physiology (VAT 1314)
3 sch	Surgical & Hospital Techniques (VAT 1413)	2 sch	Veterinary Pharmacology (VAT 2112)
3 sch	English Composition I	3 sch	Speech or Interpersonal Communications
2 sch	Orientation	3 sch	Principles of Chemistry
15 sch		16 sch	

Note: Prerequisite for second semester: Successful completion of all previous required VAT courses with a grade of "C" or higher.

1st SUMMER

3-6 sch Vet Lab Evaluation - VAT 1513 (6)

This course encompasses an evaluation of students who have successfully completed the first year of the hybrid on-line veterinary technology curriculum. The evaluation of students will include the classes of VAT 1122 Office Procedures/Vet Terminology, VAT 1413 Surgical & Hospital Techniques, and VAT 1113 Vet Lab 1, Vat Animal Anatomy & Physiology, VAT 2112 Pharmacology, VAT 1111 Vet Math and VAT 1123 Vet Lab 2. Students enrolled in the hybrid on-line program will be required to meet with the Hinds Community College faculty and staff on the Raymond campus at a scheduled time during the summer. Students enrolled in the classroom program are not required to meet with the faculty during the summer.

Prerequisite: Students must have completed all 1st year VAT courses of the Hinds Community College Veterinary Technology Program curriculum with a grade no less than a "C" in all VAT courses.

SECOND YEAR
Completed at Hinds Community College – Raymond Campus

2 sch	Animal Health Care (VAT 2113)
3 sch	Vet Lab 3 (VAT 2133)
3 sch	Clinical Pathology (VAT 2163)
3 sch	Principles of Imaging (VAT 2272)
3 sch	Microbiology
1 sch	Microbiology Laboratory
3 sch	Fine Arts/Humanities
18 sch	

2 sch	Board Examination Review (VAT 2122)
3 sch	Vet Lab 4 (VAT 2143)
2 sch	Animal Parasites & Disease (VAT 2152)
2 sch	Exotic/Lab Animal Procedures (VAT 2172)
3 sch	Large Animal Procedures (VAT 2223)
3 sch	Behavioral/Social Science
15 sch	

Note: Prerequisite for second year first semester: Successful completion of all previous required VAT courses with a grade of "C" or higher.
Prerequisite for second year second semester: Successful completion of all previous required VAT courses with a grade of "C" or higher.

2nd SUMMER

3-6 sch Internship (VAT 2183) (6)

Successful completion all academic courses in the veterinary technology curriculum with an over-all GPA of 2.0 and no less than a "C" in all required VAT courses. Both on-line and classroom Veterinary Technician students will be required to complete 6 week internship with an "APPROVED" veterinary practice and/or a laboratory animal facility. The internship provides hands-on experience in a small animal, mixed animal, large animal or laboratory animal facility.

The evaluation of students will include the classes of VAT 2113 Animal Health Care, VAT 2113 Clinical Pathology, VAT 2272 Principles of Imaging, VAT 2133 Lab 3, VAT 2223 Large Animal Procedures, VAT 2152 Animal Parasites & Disease, VAT 2122 Board Examination Review and VAT 2143 Vet Lab 4. Students enrolled in the hybrid on-line program will be required to meet with the Hinds Community College faculty and staff on the Raymond campus at a scheduled time during the summer. Students enrolled in the classroom program are not required to meet with the faculty during the summer.

Prerequisite: Successful completion all academic courses in the veterinary technology curriculum with an over-all GPA of 2.0 and no less than a "C" in all required VAT courses.

COMPLETION AWARD: Associate of Applied Science Degree **Totals Hours 67-76**

LISTING OF COURSES

AVIATION MAINTENANCE TECHNOLOGY

* * * * *

Course Name: Aviation Applied Science
Course Abbreviation: APT 1113
Classification: Vocational–Technical Core
Description: General aviation maintenance practices including orientation to aviation, aircraft maintenance safety procedures, aviation mathematics, aviation physics, and aircraft drawings. (3 sch: 42-clock-hr lecture, 57-clock-hr lab)
Pre/Corequisites: None

* * * * *

Course Name: Aviation Electricity
Course Abbreviation: APT 1123
Classification: Vocational–Technical Core
Description: Theory and application of direct and alternating current distribution and utilization of voltage. Practical application of Ohm's law. (3 sch: 33-clock-hr lecture, 40-clock-hr lab)
Pre/Corequisites: None

* * * * *

Course Name: Aviation Materials and Processes
Course Abbreviation: APT 1134
Classification: Vocational–Technical Core
Description: Materials and processes used in the construction and repair of aircraft and components, fluid lines and fittings, and corrosion protection. (4 sch: 45-clock-hr lecture, 65-clock-hr lab)
Pre/Corequisites: None

* * * * *

Course Name: Aircraft Servicing and Weight and Balance
Course Abbreviation: APT 1142
Classification: Vocational–Technical Core
Description: Aircraft ground operation and servicing and weight-and-balance checks and records. (2 sch: 28-clock-hr lecture, 46-clock-hr lab)
Pre/Corequisites: None

* * * * *

Course Name: Maintenance Forms and Records
Course Abbreviation: APT 1153
Classification: Vocational–Technical Core

Description: Maintenance publications, maintenance forms and records, and mechanic privileges and limitations. (3 sch: 27-clock-hr lecture, 41-clock-hr lab)
Pre/Corequisites: None

* * * * *

Course Name: Reciprocating Engine Theory
Course Abbreviation: APT 1162
Classification: Vocational–Technical Core
Description: Theory and principles of operation of reciprocating engines. (2 sch: 37-clock-hr lecture)
Pre/Corequisites: None

* * * * *

Course Name: Reciprocating Engine Overhaul and Inspection
Course Abbreviation: APT 1213
Classification: Vocational–Technical Core
Description: Actual overhaul of reciprocating engines. Included is a study of the procedures and acceptable techniques used in engine disassembly, inspection, repair, and reassembly. (3 sch: 28-clock-hr lecture, 92-clock-hr lab)
Pre/Corequisites: Reciprocating Engine Theory (APT 1162)

* * * * *

Course Name: Turbine Engine Theory
Course Abbreviation: APT 1222
Classification: Vocational–Technical Core
Description: Theory of basic gas turbine engines and related accessories including unducted fan systems and turbine-driven auxiliary power units. (2 sch: 37-clock-hr lecture)
Pre/Corequisites: None

* * * * *

Course Name: Turbine Engine Overhaul and Inspection
Course Abbreviation: APT 1233
Classification: Vocational–Technical Core
Description: Overhaul of basic gas turbine engines and related accessories and components, including disassembly, inspection, assembly, and operation of jet engines. (3 sch: 28-clock-hr lecture, 92-clock-hr lab)
Pre/Corequisites: Turbine Engine Theory (APT 1222)

* * * * *

Course Name: Power Plant Conformity and Airworthiness Inspection
Course Abbreviation: APT 1241
Classification: Vocational–Technical Core
Description: Inspection of aircraft power plants for conformity with airworthiness directives and manufacturer's specifications. Inspections will conform with all Federal Aviation regulations. (1 sch: 14-clock-hr lecture, 18-clock-hr lab)

Pre/Corequisites: Turbine Engine Overhaul and Inspection (APT 1233) and Reciprocating Engine Overhaul and Inspection (APT 1213)

* * * * *

Course Name: Lubrication and Fuel Metering Systems
Course Abbreviation: APT 1254
Classification: Vocational–Technical Core
Description: Aircraft lubrication, fuel metering, and fuel system components for reciprocating and turbine engines. Identification and selection of engine fuels and lubricants. (4 sch: 55-clock-hr lecture, 68-clock-hr lab)
Pre/Corequisites: Turbine Engine Overhaul and Inspection (APT 1233) and Reciprocating Engine Overhaul and Inspection (APT 1213)

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Course Name: Induction, Cooling, and Exhaust Systems
Course Abbreviation: APT 1262
Classification: Vocational–Technical Core
Description: Reciprocating and turbine induction and engine airflow systems, engine cooling systems, and engine exhaust and reverser systems. (2 sch: 27-clock-hr lecture, 52-clock-hr lab)
Pre/Corequisites: Turbine Engine Overhaul and Inspection (APT 1233) and Reciprocating Engine Overhaul and Inspection (APT 1213)

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Course Name: Aviation Electricity II
Course Abbreviation: APT 2114
Classification: Vocational–Technical Core
Description: Aircraft engine systems including instrument, engine fire protection, engine electrical, ignition, and starting. (4 sch: 55-clock-hr lecture, 67 -lock-hr lab)
Prerequisites: Turbine Engine Overhaul and Inspection (APT 1233) and Reciprocating Engine Overhaul and Inspection (APT 1213)

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Course Name: Propellers and Power Plant Review
Course Abbreviation: APT 2123
Classification: Vocational–Technical Core
Description: Inspection, service, and repair of fixed-pitch, constant-speed, and feathering propellers. Included are propeller governing systems, propeller synchronizing, and ice removal systems. Review of power plant courses. (3 sch: 36-clock-hr lecture, 45-clock-hr lab)
Prerequisites: Turbine Engine Overhaul and Inspection (APT 1233), Reciprocating Engine Overhaul and Inspection (APT 1213), and all power plant courses

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Course Name: Structures I
Course Abbreviation: APT 2135

Classification: Vocational–Technical Core
Description: Sheet metal structures and welding processes as applied to aviation mechanics. (5 sch: 43-clock-hr lecture, 131-clock-hr lab)
Prerequisite: None

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Course Name: Structures II
Course Abbreviation: APT 2143
Classification: Vocational–Technical Core
Description: Aircraft wood and non-metallic structures, covering, and finishes. (3 sch: 42-clock-hr lecture, 59-clock-hr lab)
Pre/Corequisites: Structures I (APT 2135)

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Course Name: Aircraft Controls
Course Abbreviation: APT 2212
Classification: Vocational–Technical Core
Description: Aircraft rigging and assembly. (2 sch: 17 clock-hr lecture, 42 clock-hr lab)
Prerequisites: Structures II (APT 2143)

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Course Name: Aviation Electricity III
Course Abbreviation: APT 2222
Classification: Vocational–Technical Core
Description: Airframe electrical systems and components including wiring, switches, and controls. (2 sch: 28-clock-hr lecture, 41-clock-hr lab)
Pre/Corequisites: Aircraft Controls (APT 2212)

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Course Name: Hydraulic and Pneumatic Power Systems
Course Abbreviation: APT 2232
Classification: Vocational–Technical Core
Description: Aircraft hydraulic and pneumatic power systems and components. (2 sch: 18-clock-hr lecture, 42-clock-hr lab)
Pre/Corequisites: Aviation Electricity III (APT 2222)

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Course Name: Landing Gear and Protection Systems
Course Abbreviation: APT 2243
Classification: Vocational–Technical Core
Description: Aircraft landing gear systems, position and warning systems, and ice and rain control systems. (3 sch: 32-clock-hr lecture, 42-clock-hr lab)
Pre/Corequisites: Aviation Electricity III (APT 2222)

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Course Name: Environmental Control
Course Abbreviation: APT 2251
Classification: Vocational–Technical Core
Description: Inspecting, troubleshooting, and servicing environmental control systems and cabin atmosphere control systems. (1 sch: 14-clock-hr lecture, 24-clock-hr lab)
Pre/Corequisites: Aviation Electricity III (APT 2222)

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Course Name: Aircraft Instrumentation Systems
Course Abbreviation: APT 2263
Classification: Vocational–Technical Core
Description: Aircraft instrument systems, communications and navigation systems, and aircraft fire protection systems. (3 sch: 42-clock-hr lecture, 42-clock-hr lab)
Prerequisites: Aviation Electricity III (APT 2222)

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Course Name: Aircraft Fuel Systems
Course Abbreviation: APT 2271
Classification: Vocational–Technical Core
Description: Construction, inspection, and maintenance of various fuel systems and components including tanks, pumps, strainers, tubing, and hoses. (1 sch: 18-clock-hr lecture, 18-clock-hr lab)
Pre/Corequisites: Aviation Electricity III (APT 2222)

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Course Name: Airframe Inspection and Review
Course Abbreviation: APT 2282
Classification: Vocational–Technical Core
Description: Airframe conformity and air worthiness inspections and maintenance procedures. Review of all airframe courses. (2 sch: 14-clock-hr lecture, 42-clock-hr lab)
Prerequisites: All airframe courses

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Course Name: Special Project for Aviation Maintenance Technology
Course Abbreviation: APT 233(1–5)
Classification: Vocational–Technical Elective (Aviation Maintenance Technology)
Description: Practical application of skills and knowledge gained in other aviation or aviation-related technical courses. The instructor works closely with the student to ensure that the selection of a project will enhance the student's learning experience. (1–4 sch: 2- to 8-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Supervised Work Experience for Aviation Maintenance Technology
Course Abbreviation: APT 234(1–6)
Classification: Vocational–Technical Elective (Aviation Maintenance Technology)
Description: This cooperative program between industry and education is designed to integrate the student's technical studies with industrial experience. Variable credit is awarded on the basis of 1 semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)
Prerequisites: Consent of instructor

BANKING AND FINANCE TECHNOLOGY

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Course Name: Principles of Banking
Course Abbreviation: BFT 1213
Classification: Vocational–Technical Core
Description: This course presents the fundamentals of bank functions and operations and is the basic course for further studies in finance and banking. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Money and Banking
Course Abbreviation: BFT 1223
Classification: Vocational–Technical Core
Description: This course presents the basic economic principles most closely related to the subject of money and banking in a context of related topics to strengthen knowledge and appreciation of the role of financial institutions in the functioning of the American economy. Emphasis is placed on such problems as economic stabilization, limitations of central bank control, and government fiscal policy showing their repercussion on the banking industry.
(3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Law and Banking Principles
Course Abbreviation: BFT 1233
Classification: Vocational–Technical Core
Description: This course provides an overview of legal and regulatory aspects and functions of banking. Emphasis on sources and applications of banking law, distinguishing between torts and crimes and their relationship to banking, explanation of contracts to include legal capacity, legal objectives, mutual assent, and consideration. Also includes real and personal properties and their application to banking, bankruptcy and liquidation, and the legal implications of electronic banking. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Consumer Lending
Course Abbreviation: BFT 1313
Classification: Vocational–Technical Core
Description: This course provides specific concepts as well as the role consumer credit plays in a commercial bank. Techniques of installment lending are introduced with emphasis on the loan interview, loan application, investigating credit, evaluating credit risks, making credit decisions, documenting credit, and consumer compliance. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Commercial Lending
Course Abbreviation: BFT 1323
Classification: Vocational–Technical Elective
Description: This course is designed to give an overview of the bank's commercial lending function and perspective. The course offers the basic definitions, concepts, and principles of commercial lending and illustrates the involvement of an interactive process that demands human relations skills. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Professional Development in Financial Institutions
Course Abbreviation: BFT 2444
Classification: Vocational–Technical Core
Description: This course provides practical exercises in both the technical and social skills necessary for employment in the finance and banking industry. Involvement in a program of leadership and personal development in occupational competencies and high standards in personal and professional relationships are stressed. (4 sch: 3-hr lecture).
Prerequisite: None

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Course Name: Banking and Finance Math
Course Abbreviation: BFT 1513
Classification: Vocational–Technical Elective
Description: This course is designed to develop competency in math skills for financial services use. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Business Policy
Course Abbreviation: BFT 2113
Classification: Vocational–Technical Core
Description: This course uses the learn-by-doing approach with activities and cases drawn from the field of finance, business administration, and current economic situation to illustrate how daily tasks are evaluated and performed by business professionals. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Business Finance
Course Abbreviation: BFT 2523
Classification: Vocational–Technical Elective
Description: This course introduces the student to business finance management with the principles of finance applied to the operations of the profit-seeking business firm. Fundamental processes of problem solving are emphasized. (3 sch: 3-hr lecture)**.**

Prerequisite: None

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Course Name: Financial Management
Course Abbreviation: BFT 2533
Classification: Vocational–Technical Core
Description: This course introduces the student to business and personal financial management. The student will learn how to analyze business and personal financial needs.
(3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Bank Teller Operations
Course Abbreviation: BFT 2613
Classification: Vocational–Technical Core
Description: This course focuses on the skills new tellers need to carry out their daily responsibilities in today's financial services industry. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Personal Finance
Course Abbreviation: BFT 2713
Classification: Vocational–Technical Elective
Description: This course provides students with a basic understanding of personal finance so that students may properly manage their own financial affairs. This course will enable students to understand and practice the principles of money management, consumer credit, savings, investments, taxation, and consumer protection. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Special Project in Banking and Finance Technology
Course Abbreviation: BFT 2914 or Work-Based Learning [WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)]
Classification: Vocational–Technical Core
Description: This course emphasizes development of concepts, terminology, and theory of banking and finance. The student will be assigned projects dealing with current situations in the financial services industry. (3-4 sch: 3-hr lecture)
Prerequisite: Approval of instructor

COMPUTER SERVICING TECHNOLOGY

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Course Name: Basic Electronics
Course Abbreviations: CST 1114
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: Concepts of electronics. Topics include DC and AC fundamentals, instrument and test equipment familiarization, soldering, and terminology. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisites: None

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Course Name: Basic Computer Hardware
Course Abbreviation: CST 1123
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: A survey of computer components. Topics include hardware compatibility, system architecture, memory, input devices, video displays, disk drives, modems, and printers. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: None

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Course Name: Operating Systems
Course Abbreviations: CST 1333
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: Study of operating systems. Emphasis will be placed on support personnel interaction with operating systems. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: None

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Course Name: Networking I
Course Abbreviation: CST 1214
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: Concepts of telephony, local area networks, wide area networks, data transmission, and topology methods. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisites: None

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Course Name: Computer Servicing Lab I
Course Abbreviation: CST 2113
Classification: Vocational–Technical Core (Computer Servicing Technology); Vocational–Technical Elective (Electronics Technology)
Description: Fundamentals of computer servicing. Includes configuration, test equipment usage, basic disassembly and assembly methods, preliminary tests and diagnostics, schematic interpretation, and building cables. (3 sch: 6-hr lab)
Pre/Corequisites: Basic Computer Hardware (CST 1123) and Basic Electronics (CST 1114)

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Course Name: Computer Servicing Lab II
Course Abbreviation: CST 2123
Classification: Vocational–Technical Core (Computer Servicing Technology); Vocational–Technical Elective (Electronics Technology)
Description: Continuation of Computer Servicing Lab I (CST 2113) with an increased emphasis on system analysis and diagnosis of component and device failures in a laboratory environment. (3 sch: 6-hr lab)
Prerequisites: Computer Servicing Lab I (CST 2113)

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Course Name: Networking II
Course Abbreviation: CST 2223
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: This course focuses on network connectivity, architectures, topologies, protocols, and transport methods of a network. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Networking I (CST 1214)

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Course Name: PC Diagnostics and Troubleshooting
Course Abbreviation: CST 2134
Classification: Vocational–Technical Core (Computer Servicing Technology)
Description: Diagnostic techniques and troubleshooting methodologies of operating systems, common hardware problems, and system malfunctions, including peripherals. (4 sch: 2-hr lecture, 4-hr lab)
Pre/Corequisite: Computer Servicing Lab I (CST 2113)

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Course Name: Special Project
Course Abbreviation: CST 291(1–3)
Classification: Vocational–Technical Elective (Computer Servicing Technology)
Description: Practical application of skills and knowledge gained in computer servicing and technical-related courses. The instructor works closely with the student to ensure that the selection of a project will enhance the student's learning experience. (1–3 sch: 2- to 6-hr lab)
Prerequisites: Consent of instructor

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Course Name: Supervised Work Experience
Course Abbreviation: CST 292(1–6)
Classification: Vocational–Technical Elective (Computer Servicing Technology)
Description: Cooperative program between industry and education designed to integrate the student's technical studies with industrial experience. Variable credit is awarded on the basis of semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)

Prerequisites: Consent of instructor

CONSTRUCTION EQUIPMENT OPEATION

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Course Name: Safety I
Course Abbreviation: CEV 1212
Classification: Vocational–Technical Core
Description: Personal safety, fire safety, and rules for safety of each machine to include pre-start, operational, post-operation, and traffic. (2 sch: 1-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Safety II
Course Abbreviation: CEV 1222
Classification: Vocational–Technical Core
Description: Pedestrian safety, safety communications, and safety procedures in working near utilities. (2 sch: 1-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Service and Preventive Maintenance I
Course Abbreviation: CEV 1313
Classification: Vocational–Technical Core
Description: Characteristics of oils and greases, fuel handling procedures, and performing minor mechanical maintenance. Practice includes servicing a fuel filter system and changing engine oil. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Service and Preventive Maintenance II
Course Abbreviation: CEV 1323
Classification: Vocational–Technical Core
Description: Lubrication procedures; servicing air filters; servicing cooling systems; servicing hydraulic systems; and installation, removal, and storage of batteries. (3 sch: 1-hr lecture, 4-hr lab)
Prerequisite: None

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Course Name: Equipment Operation I
Course Abbreviation: CEV 1416
Classification: Vocational–Technical Core
Description: Operation of the backhoe, scraper, and grader. Includes operating the controls and basic skills done with each machine and performance of assignments by verbal and written instructions. (6 sch: 1-hr lecture, 10-hr lab)
Prerequisite: None

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Course Name: Equipment Operation II
Course Abbreviation: CEV 1426
Classification: Vocational–Technical Core
Description: Operation of the dozer, loader, and excavator. Includes the controls and basic skills performed with each machine and completing assignments by verbal and written instructions. (6 sch: 1-hr lecture, 10-hr lab)
Prerequisite: None

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Course Name: Grade Work I
Course Abbreviation: CEV 1514
Classification: Vocational–Technical Core
Description: Setting and checking of grade stakes that are used on job sites. Instruction and practice of transferring elevations are also included. (4 sch: 1-hr lecture, 6-hr lab)
Prerequisite: None

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Course Name: Grade Work II
Course Abbreviation: CEV 1524
Classification: Vocational–Technical Core
Description: Additional instruction and practice regarding the setting and checking grades. Also instruction and practice on the compaction of various materials. (4 sch: 1-hr lecture, 6-hr lab)
Prerequisite: None

DRAFTING AND DESIGN CLUSTER

Architectural Engineering Technology and General Drafting Courses

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Course Name: Fundamentals of Drafting
Course Abbreviation: DDT 1113
Classification: Vocational–Technical Core
Description: Fundamentals and principles of drafting to provide the basic background needed for all other drafting courses (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Computational Methods for Drafting
Course Abbreviation: DDT 1123
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: Study of computational skills required for the development of accurate design and drafting methods (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Machine Drafting I
Course Abbreviation: DDT 1133
Classification: Vocational–Technical Core (General Drafting Associate's Degree and Certificate); Vocational–Technical Elective (Architectural Engineering Technology/Technician)
Description: Emphasizes methods, techniques, and procedures in presenting screws, bolts, rivets, springs, thread types, symbols for welding, materials, finish and heat treatment notation, working order preparation, routing, and other drafting room procedures (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Principles of CAD (DDT 1313)

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Course Name: Geometric Dimensioning and Tolerancing
Course Abbreviation: DDT 1143
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree and Certificate)
Description: A continuation of conventional dimensioning with emphasis on concepts as adopted by the American National Standards Institute (ANSI); a study of international dimensioning symbols used to control tolerances of form, profile, orientation, runout, and location of features on an object (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Machine Drafting I (DDT 1133)

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Course Name: Descriptive Geometry
Course Abbreviation: DDT 1153
Classification: Vocational–Technical Elective (Architectural and Engineering Technology/Technician; General Drafting Associate Degree's and Certificate); Vocational–Technical Core (Geographical Information Systems Technology Associate's Degree)
Description: Theory and problems designed to develop the ability to visualize points, lines, and surfaces of space (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113)

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Course Name: Construction Materials
Course Abbreviation: DDT 1213
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting Associate's Degree); Vocational–Technical Elective (General Drafting Certificate)
Description: Physical properties of the materials generally used in the erection of a structure, with a brief description of their manufacture (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Principles of CAD
Course Abbreviation: DDT 1313
Classification: Vocational–Technical Core
Description: Basic operating system and drafting skills on CAD (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) or consent of instructor

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Course Name: Intermediate CAD
Course Abbreviation: DDT 1323
Classification: Vocational–Technical Core (General Drafting Associate's Degree and Certificate; Architectural Engineering Technology/Technician); Vocational–Technical Elective (Geographical Information Systems Technology)
Description: Continuation of Principles of CAD (DDT 1313). Subject areas include dimensioning, sectional views, and symbols. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Principles of CAD (DDT 1313)

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Course Name: Elementary Surveying
Course Abbreviation: DDT 1413
Classification: Vocational–Technical Core (General Drafting Certificate; Geographical Information Systems Technology Associate's Degree and Certificate); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)

Description: Basic course dealing with principles of geometry, theory, and use of instruments; mathematical calculations; and the control and reduction of errors (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Blueprint Reading I
Course Abbreviation: DDT 1513
Classification: Service course for vocational–technical programs
Description: Terms and definitions used in reading blueprints. Basic sketching, drawing, and dimensioning of objects will be covered. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Blueprint Reading II
Course Abbreviation: DDT 1523
Classification: Service course for vocational–technical programs
Description: Continuation of Blueprint Reading I with emphasis placed on reading and interpreting blueprints for different types of structures and performing basic calculations (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Blueprint Reading I (DDT 1513)

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Course Name: Architectural Design I
Course Abbreviation: DDT 1613
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting)
Description: This course is a study and development of architectural design principles for a residential structure. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Principles of CAD (DDT 1313)

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Course Name: Fundamentals of Machining Processes
Course Abbreviation: DDT 1713
Classification: Vocational–Technical Elective (General Drafting)
Description: Basic machining equipment and safety procedures. Emphasis is placed on measurement techniques, machine technology, machine tools, and applications (a course for drafting students with no previous machining experience). (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Design for Manufacturing
Course Abbreviation: DDT 1813
Classification: Vocational–Technical Elective (General Drafting)

Description: Instruction in various methods of manufacturing with emphasis on the drafter's role in manufacturing (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Civil Drafting
Course Abbreviation: DDT 2153
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting)
Description: Course dealing with basic principles of surveying and the development of topographical maps (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Principles of CAD (DDT 1313) or consent of instructor

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Course Name: Machine Drafting II
Course Abbreviation: DDT 2163
Classification: Vocational–Technical Core (General Drafting Certificate); Vocational–Technical Elective (General Drafting Associate's Degree)
Description: A continuation of Machine Drafting I with emphasis on advanced techniques and knowledge employed in the planning of mechanical objects; includes instruction in the use of tolerancing and dimensioning techniques (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Machine Drafting I (DDT 1133)

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Course Name: Structural Drafting I
Course Abbreviation: DDT 2213
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting Associate's Degree); Vocational–Technical Elective (General Drafting Certificate)
Description: Structural section, terms, and conventional abbreviations and symbols used by structural fabricators and erectors are studied. Knowledge is gained in the use of the A.I.S.C. Handbook. Problems are studied that involve structural designing and drawing of beams, columns, connections, trusses, and bracing (steel, concrete, and wood). (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Principles of CAD (DDT 1313)

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Course Name: Structural Drafting II
Course Abbreviation: DDT 2233
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: Study of the miscellaneous areas of structural drafting including stairs, handrails, and cage ladders (3 sch: 1-hr lecture, 4-hr lab)

Pre/Corequisites: Intermediate CAD (DDT 1323) and Structural Drafting I (DDT 2233)

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Course Name: Cost Estimating
Course Abbreviation: DDT 2243
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician); Vocational–Technical Elective (General Drafting)
Description: Preparation of material and labor quantity surveys from actual working drawings and specifications (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Statics and Strength of Materials
Course Abbreviation: DDT 2253
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: Study of forces acting on bodies; moments of forces; stress of materials; basic machine design; and beams, columns, and connections (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: College Algebra (MAT 1313) or by consent of instructor

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Course Name: Quality Assurance
Course Abbreviation: DDT 2263
Classification: Vocational–Technical Elective (General Drafting Associate's Degree)
Description: The application of statistics and probability theory in quality assurance programs. Various product sampling plans as well as the development of product charts for defective units will be studied. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Facilities Planning
Course Abbreviation: DDT 2273
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician)
Description: This course deals with the techniques and procedures for developing an efficient facility layout and introduces some of the state-of-the-art tools involved, such as 3-D design and computer simulation. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Advanced CAD
Course Abbreviation: DDT 2343
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting); Vocational–Technical Elective (Geographical Information Systems Technology)

Description: A continuation of Intermediate CAD. Emphasis is placed on the user coordinate system and 3-D modeling. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Intermediate CAD (DDT 1323)

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Course Name: CAD Management
Course Abbreviation: DDT 2353
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; Mechanical/Industrial; General Drafting)
Description: Topics include technical and business aspects of CAD. Standards, customization, networking, Internet integration, and employee support will be covered. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Intermediate CAD (DDT 1323)

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Course Name: Computer Numerical Control (CNC) Drafting
Course Abbreviation: DDT 2363
Classification: Vocational–Technical Elective (General Drafting Associate's Degree)
Description: Basics of numerical control machines (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Principles of CAD (DDT 1313)

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Course Name: Mapping and Topography
Course Abbreviation: DDT 2423
Classification: Vocational–Technical Elective (General Drafting; Architectural Engineering Technology/Technician; Geographical Information Systems Technology)
Description: Selected drafting techniques are applied to the problem of making maps, traverses, plot plans, plan drawings, and profile drawings using maps, field survey data, aerial photographs, and related references and materials including symbols, notations, and other applicable standardized materials. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Elementary Surveying (DDT 1413) and Intermediate CAD (DDT 1323) or by consent of instructor

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Course Name: Legal Principles of Surveying
Course Abbreviation: CIT 2113/DDT 2433
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: A study of the legal aspects of boundary controls for the survey and resurvey of real property (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Elementary Surveying (DDT 1413)

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Course Name: Advanced Surveying
Course Abbreviation: CIT 2124/DDT 2443

Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting; Geographical Information Systems Technology)
Description: A course designed to provide the student with practical applications of skills and knowledge gained in other surveying and related courses (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Elementary Surveying (DDT 1413)

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Course Name: GPS Surveying
Course Abbreviation: CIT 2444/DDT 2463
Classification: Vocational–Technical Core (Geographical Information Systems Technology Associate's Degree); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting; Geographical Information Systems Technology Certificate)
Description: This course teaches principles of surveying utilizing artificial earth orbit satellites. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Elementary Surveying (DDT 1413)

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Course Name: Pipe Drafting
Course Abbreviation: DDT 2523
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: Instruction in the basic knowledge needed to create process piping drawings using individual piping components (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Principles of CAD (DDT 1313)

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Course Name: Highway Drafting
Course Abbreviation: DDT 2533
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: A basic study of highway drafting; horizontal alignment of route surveys in the plan view, vertical alignment of route surveys in the profile view, typical sections, cross sections, and area calculations and estimation of quantities. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113) and Intermediate CAD (DDT 1323)

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Course Name: Steel Ship Building and Design
Course Abbreviation: DDT 2543
Classification: Vocational–Technical Elective (General Drafting)

Description: Instruction in basic steel ship building and the process of ship design and planning (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Drafting (DDT 1113)

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Course Name: Architectural Design II
Course Abbreviation: DDT 2623
Classification: Vocational–Technical Core (Architectural Engineering Technology/Technician; General Drafting Certificate); Vocational–Technical Elective (General Drafting Associate's Degree)
Description: Emphasizes standard procedures and working drawings. Details involving architectural, mechanical, electrical, and structural drawings are covered, along with presentation of drawings and computer-aided design assignments. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Architectural Design I (DDT 1613) and Intermediate CAD (DDT 1323) or by consent of instructor

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Course Name: Fundamentals of Multimedia
Course Abbreviation: DDT 2713
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: A general overview of current issues in multimedia; study of how multimedia can assist in the work environment; provides a basis for further study in multimedia design and production (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Architectural Design II (DDT 2623)

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Course Name: Special Project
Course Abbreviation: DDT 291 (1–3)
Classification: Vocational–Technical Core (General Drafting Certificate); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: Practical application of skills and knowledge gained in other drafting courses. The instructor works closely with the student to ensure that the selection of a project will enhance the student's learning experience. (1–3 sch: 2- to 6-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Supervised Work Experience in Drafting and Design Technology
Course Abbreviation: DDT 292(1–6)
Classification: Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting)
Description: Cooperative program between industry and education designed to integrate the student's technical studies with industrial experience. Variable credit is awarded on

the basis of 1 semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)
Pre/Corequisites: Consent of instructor and the completion of at least one semester of advanced course work in the drafting program

Geographical Information Systems Technology Option Courses

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Course Name: Cartography and Computer Map Reading
Course Abbreviation: GIT 1253
Classification: Vocational–Technical Core (Geographical Information Systems Technology)
Description: An introduction to the preparation and interpretation of data in cartographic form and the use of computers for map compilation, design, and production; includes principles of global positioning (GPS), methods of map making, and principles of digital cartography (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Fundamentals of Geographical Information Systems (GIS) (GIT 2123)

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Course Name: Database Construction and Maintenance
Course Abbreviation: GIT 2113
Classification: Vocational–Technical Core (Geographical Information Systems Technology); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: A course designed to introduce database concepts and goals of database management systems, and relational, hierarchical, and network models of data. Methods for organizing data are introduced and discussed. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Fundamentals of Geographical Information Systems (GIS)
Course Abbreviation: GIT 2123
Classification: Vocational–Technical Core (Geographical Information Systems Technology); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: This course includes the use of computer mapping and databases in multiple applications. Included are incorporation of imagery and data into a graphical oriented database system. Also included are the fundamentals of geographical information systems techniques, approaches, and applications. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: None

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Course Name: Principles of Image Processing
Course Abbreviation: GIT 2133
Classification: Vocational–Technical Core (Geographical Information Systems Technology Associate's Degree); Vocational–Technical Elective (Geographical Information Systems Technology Certificate; Architectural Engineering Technology/Technician; General Drafting Associate's Degree)

Description: This course includes fundamentals of remotely sensed data including scale, feature identification, and symbolization. It includes fundamentals of interpretation techniques of various image products, including topographic and thematic maps, aerial photographs, sensor images, and satellite images. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Remote Sensing (GIT 2273)

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Course Name: Advanced Geographical Information Systems
Course Abbreviation: GIT 2263
Classification: Vocational–Technical Core (Geographical Information Systems Technology); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: This is an integrated course that encompasses geographical data inputs, processing, analyses, and presentation. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: Database Construction and Maintenance (GIT 2113), Mapping and Topography for GIS (GIT 2423), or Mapping and Topography (DDT 2423)

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Course Name: Remote Sensing
Course Abbreviation: GIT 2273
Classification: Vocational–Technical Core (Geographical Information Systems Technology); Vocational–Technical Elective (Architectural Engineering Technology/Technician; General Drafting Associate's Degree)
Description: This course includes a discussion of a variety of remote sensing data collections methods. The course deals with manual interpretation data from photographs and other imagery. (3 sch: 1-hr lecture, 4-hr lab)
Pre/Corequisites: None

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Course Name: Mapping and Topography for Geographical Information Systems
Course Abbreviation: GIT 2423
Classification: Vocational–Technical Core (Geographical Information Systems Technology Certificate); Vocational–Technical Elective (Geographical Information Systems Technology Associate's Degree)
Description: Selected drafting techniques are applied to the problem of making maps, traverses, plot plans, plan drawings, and profile drawings using maps, field survey data, aerial photographs, and related references and materials including symbols, notations, and other applicable standardized materials. (3 sch: 2-hr lecture, 2-hr lab)
Pre/Corequisites: Elementary Surveying (DDT 1413) and Intermediate CAD (DDT 1323)

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Course Name: Special Problem in Geographical Information Systems Technology
Course Abbreviation: GIT 291(1–3)
Classification: Vocational–Technical Elective (Geographical Information Systems Technology)

Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Geographical Information Systems courses. The instructor and student work closely together to select a topic and establish criteria for completion of the project. (1–3 sch: 2- to 6-hr lab)
Pre/Corequisites: Consent of instructor

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Course Name: Supervised Work Experience in Geographical Information Systems Technology
Course Abbreviation: GIT 292(1–6)
Classification: Vocational–Technical Elective (Geographical Information Systems Technology)
Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Geographical Information Systems courses. The instructor and student work closely together to select a topic and establish criteria for completion of the project. (1–3 sch: 2- to 6-hr lab)
Pre/Corequisitess: Consent of instructor

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Course Name: Work-Based Learning I, II, III, IV, V, and VI
Course Abbreviation: WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)
Classification: Vocational–Technical Elective
Description: A structured work-site learning experience in which the student, program area teacher, Work-Based Learning Coordinator, and work-site supervisor/mentor develop and implement an educational training agreement; designed to integrate the student's academic and technical skills into a work environment; includes regular meetings and seminars with school personnel for supplemental instruction and progress reviews (1–3 sch: 3- to 9-hr externship)
Pre/Corequisites: Concurrent enrollment in vocational–technical program area courses

GRAPHICS AND PRINT COMMUNICATIONS

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Course Name: Overview of Graphics and Print Communications
Course Abbreviation: GPV 1212
Classification: Vocational–Technical Core
Description: This course is an overview of the graphic arts. Students will study the major historical events and copyright restrictions. An overview of the general safety practices, measurements, and printing processes is included. (2 sch: 1-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Pasteup and Layout
Course Abbreviation: GPV 1314
Classification: Vocational–Technical Core
Description: This course includes production techniques for preparing copy for reproduction. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: None

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Course Name: Graphic and Design I
Course Abbreviation: GPV 1414
Classification: Vocational–Technical Core
Description: This course is an introduction to graphic design. Students will compare conventional typesetting with desktop publishing systems. This course includes the editing and layout of jobs, basic computer terminology, installation and use of software, proofreading and markup for correction, and the study of type sizes, styles, leading, and line length. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: None

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Course Name: Graphic Design II
Course Abbreviation: GPV 1424
Classification: This course is advanced graphic design. Basic skills learned in Graphic Design I will be used to create more complex layouts with closer tolerances and broader use of colors. (4 sch: 2-hr lecture, 4-hr lab)
Description: Graphic Design I (GPV 1414)
Prerequisite: None

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Course Name: Press Operations I
Course Abbreviation: GPV 1712
Classification: Vocational–Technical Core

Description: This course is an introduction to printing operations with emphasis on safety practices, fundamental setup and operational procedures. (2 sch: 1-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Press Operations II
Course Abbreviation: GPV 1723
Classification: Vocational–Technical Core
Description: This course is a continuation of Press Operations I with emphasis on 2-color printing operations, maintenance and troubleshooting, and new trends and technologies in printing. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Press Operations I (GPV 1712)

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Course Name: Press Operations III
Course Abbreviation: GPV 1733
Classification: Vocational–Technical Elective
Description: This course is a continuation of GPV 1712 and GPV 1723 with emphasis on multicolor printing. (3 sch: 6-hr lab)
Prerequisite: Press Operations II (GPV 1723)

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Course Name: Digital Printing I
Course Abbreviation: GPV 1744
Classification: Vocational–Technical Core
Description: This course will introduce the student to the digital printing process. Emphasis will be placed on the characteristics and special capabilities of digital printing equipment as well as its limitations.
Prerequisite: None

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Course Name: Digital Printing II
Course Abbreviation: GPV 1752
Classification: Vocational–Technical Core
Description: A study of the xerographic process and its impact on the design and use of modern digital printing equipment. (2 sch: 1-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Binding and Finishing Operations
Course Abbreviation: GPV 1814
Classification: Vocational–Technical Core
Description: This course includes instruction and practice in binding and finishing techniques including folding, padding, drilling, and stitching. (4 sch: 2-hr lecture, 4-hr lab)

Prerequisite: None

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Course Name: Special Project in Graphics and Print Communications
Course Abbreviation: GPV 191(1-3)
Classification: Vocational–Technical Elective
Description: This course provides students with practical application of skills and knowledge related to a specific instructor-approved topic. Instructor and student work closely together in planning and conducting the project. (1-3 sch: 2-6-hr lab)
Prerequisite: Consent of the instructor

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Course Name: Supervised Work Experience in Graphics and Print Communications
Course Abbreviation: GPV 192(1-3)
Classification: Vocational–Technical Elective
Description: A supervised on-site work experience in which the student works under the supervision of industry and community college personnel. Competencies and objectives for this course are determined by a mutual agreement between the student, employer, and teacher. (1-3sch: 3-9-hr internship)
Prerequisite: None

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Course Name: Basic Compression Refrigeration
Course Abbreviation: ACT 1125
Classification: Vocational–Technical Core
Description: An introduction to the field of refrigeration and air-conditioning. Emphasis is placed on principles of safety, first aid, thermodynamics, heat transfer, recovery, and lubricants. (5 sch: 2-hr lecture, 6-hr lab)
Prerequisite: None

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Course Name: Tools and Piping
Course Abbreviation: ACT 1133
Classification: Vocational–Technical Core
Description: Various tools and pipe connecting techniques. Covers tools and test equipment required in heating, ventilation, air-conditioning, and refrigeration. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Controls
Course Abbreviation: ACT 1213
Classification: Vocational–Technical Core
Description: Fundamentals of gas, fluid, electrical, and programmable controls. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Electricity for Heating, Ventilation, Air-Conditioning, and Refrigeration (ACT 1713) or by consent of the instructor

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Course Name: Refrigeration System Components
Course Abbreviation: ACT 1313
Classification: Vocational–Technical Core
Description: An in-depth study of the components and accessories of a sealed system including metering devices, evaporators, compressors, and condensers. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: By consent of instructor

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Course Name: Electricity for Heating, Ventilation, Air-Conditioning, and Refrigeration
Course Abbreviation: ACT 1713
Classification: Vocational–TechnicalCore
Description: Basic knowledge of electricity, power distribution, components, solid state devices, and electrical circuits. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Professional Service Procedures
Course Abbreviation: ACT 1813
Classification: Vocational–Technical Core
Description: Business ethics necessary to work with both the employer and customer. Includes resumé, record keeping, and service contracts. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Commercial Refrigeration
Course Abbreviation: ACT 2324
Classification: Vocational–Technical Core
Description: A study of various commercial refrigeration systems. Includes installation, servicing, and maintaining systems. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: By consent of the instructor

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Course Name: Air-Conditioning I
Course Abbreviation: ACT 2414
Classification: Vocational–Technical Core
Description: Residential air-conditioning including indoor air quality. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: By consent of the instructor

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Course Name: Air-Conditioning II
Course Abbreviation: ACT 2424
Classification: Vocational–Technical Core
Description: A continuation of Air-Conditioning I as an in-depth course in the installation, startup, and maintenance of air-conditioning systems to include residential and commercial. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: Air-Conditioning I (ACT 2414) or by consent of the instructor

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Course Name: Refrigerant, Retrofit, and Regulations
Course Abbreviation: ACT 2433
Classification: Vocational–Technical Core
Description: Regulations and standards for new retrofit and government regulations. Includes OSHA regulations, EPA regulations, and local and state codes. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Heating Systems
Course Abbreviation: ACT 2513
Classification: Vocational–Technical Core
Description: Various types of residential and commercial heating systems. Includes gas, oil, electric, compression, and hydronic heating systems. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: None

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Course Name: Heat Load and Air Properties
Course Abbreviation: ACT 2624
Classification: Vocational–Technical Core
Description Introduction to heat load calculations for residential and light commercial heating, ventilation, air-conditioning, and refrigeration systems. Includes air distribution, duct sizing, selection of grills and registers, types of fans, air velocity, and fan performance. Introduces air testing instruments and computer usage. (4 sch: 2-hr lecture, 4-hr lab)
Prerequisite: None

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Course Name: Special Project in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology
Course Abbreviation: ACT 291(1–3)
Classification: Vocational–Technical Elective
Description: This course is designed to provide the student with practical application of skills and knowledge gained in technical courses. The instructor works closely with the student to ensure that the selection of a project will enhance the student's learning experience. (1–3 sch: 2- to 6-hr lab)
Prerequisite: Consent of instructor

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Course Name: Supervised Work Experience in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology
Course Abbreviation: ACT 292(1–6)
Classification: Vocational–Technical Elective
Description: This course is a cooperative program between industry and education and is designed to integrate the student’s technical studies with industrial experience. Variable credit is awarded on the basis of one semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)
Prerequisite: Consent of instructor and completion of at least one semester of advanced coursework in Heating, Ventilation, Air-Conditioning, and Refrigeration Technology

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Course Name: Work-Based Learning I, II, III, IV, V, and VI

Course Abbreviation: WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)
Classification: Free Elective
Description: A structured work-site learning experience in which the student, program area teacher, Work-Based Learning Coordinator, and work-site supervisor/mentor develop and implement an educational training agreement. Designed to integrate the student's academic and technical skills into a work environment. May include regular meetings and seminars with school personnel and employers for supplemental instruction and progress reviews. (1–3 sch: 3- to 9-hr externship)
Prerequisite: Concurrent enrollment in vocational–technical program area courses

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Course Name: Industrial Maintenance Safety
Course Abbreviation: IMM 1112
Classification: Vocational–Technical Core
Description: General safety practices, personal safety, electrical safety practices, and power equipment safety. (2 sch: 1-hr lecture, 2-hr lab) [May be taught as a 60-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Industrial Maintenance Math and Measurement
Course Abbreviation: IMM 1122
Classification: Vocational–Technical Core
Description: Mathematical and measurement procedures and instruments related to industrial maintenance. (2 sch: 1-hr lecture, 2-hr lab) [May be taught as a 60-contact-hour lab in open-entry–open-exit vocational programs.]
Prerequisite: None

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Course Name: Industrial Maintenance Blueprint Reading
Course Abbreviation: IMM 1132
Classification: Vocational–Technical Core
Description: Blueprints, schematics, and plans used in industrial maintenance including instruction in nomenclature, different views, and symbols and notations. (2 sch: 1-hr lecture, 2-hr lab) [May be taught as a 60-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Industrial Hand Tools and Mechanical Components
Course Abbreviation: IMM 1213
Classification: Vocational–Technical Core
Description: Safe and proper use of hand tools and mechanical components commonly used by industrial maintenance mechanics and technicians. Includes instruction in the selection, use, and care of common hand tools and in the identification and maintenance of mechanical components such as belts and pulleys, chains and sprockets, and bearings and seals used to transmit mechanical power. (3 sch: 1-hr lecture, 4-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Power Tool Applications
Course Abbreviation: IMM 1224
Classification: Vocational–Technical Elective

Description: Safe and proper use of various hand and stationary power tools. Includes instruction in the use of hand power tools, bench grinders, threading machines, cut-off saws, and drill presses. (4 sch: 1-hr lecture, 6-hr lab) [May be taught as a 120-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Precision Machining Operations
Course Abbreviation: IMM 1235
Classification: Vocational–Technical Elective (Associate's Degree)
Description: Safe and proper use of various precision tools. Includes instruction in the use of drill presses, engine lathes, and milling machines. (5 sch: 2-hr lecture, 6-hr lab)
Prerequisite: None

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Course Name: Principles of Hydraulics and Pneumatics
Course Abbreviation: IMM 1314
Classification: Vocational–Technical Core (Associate's Degree); Vocational–Technical Elective (Certificate)
Description: Instruction in basic principles of hydraulics and pneumatics and the inspection, maintenance, and repair of hydraulic and pneumatic systems. (4 sch: 1-hr lecture, 6-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: Industrial Maintenance Math and Measurement (IMM 1122) or approval by the instructor

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Course Name: Pump and Valve Operations
Course Abbreviation: IMM 1415
Classification: Vocational–Technical Elective
Description: Instruction on the different types of pumps and valves used in industry and their disassembly, inspection, and repair and replacement. (5 sch: 2-hr lecture, 6-hr lab) [May be taught as a 120-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Equipment Installation and Alignment
Course Abbreviation: IMM 1515
Classification: Vocational–Technical Core (Associate's Degree); Vocational–Technical Elective (Certificate)
Description: Instruction in pre-installation checks, assembly, location and layout of equipment, preparation of foundations and anchoring procedures, rigging and hoisting, and alignment and initial setup of equipment. (5 sch: 2-hr lecture, 6-hr lab) [May be taught as a 120-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Preventive Maintenance and Service of Equipment
Course Abbreviation: IMM 1524
Classification: Vocational–Technical Elective
Description: Instruction in basic maintenance and troubleshooting techniques; use of technical manuals and test equipment; and inspection, evaluation, and repair of equipment. (4 sch: 1-hr lecture, 6-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Principles of Piping and Hydro-Testing
Course Abbreviation: IMM 1614
Classification: Vocational–Technical Core
Description: Instruction on basic principles of piping and pipe fitting, basic pipe fitting procedures, and basic hydro-testing of pipe systems. (4 sch: 2-hr lecture, 4-hr lab) [May be taught as a 150-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Methods of Layout
Course Abbreviation: IMM 1713
Classification: Vocational–Technical Elective
Description: Layout and development of various sheet metal problems using the principles of parallel line and triangulation development. (3 sch: 6-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Pre/Corequisite: Industrial Maintenance Math and Measurement (IMM 1122) or approval by instructor

* * * * *

Course Name: Structural Repair
Course Abbreviation: IMM 1723
Classification: Vocational–Technical Elective
Description: Estimating and making repairs of wood, metal, and masonry structures. (3 sch: 6-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Prerequisite: None

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Course Name: Maintenance Welding and Metals
Course Abbreviation: IMM 1734
Classification: Vocational–Technical Core
Description: Instruction in different metals and their properties and in basic SMAW welding and oxy-fuel cutting and brazing. (4 sch: 1-hr lecture, 6-hr lab) [May be taught as a 120-contact-hour lab in open-entry–open-exit vocational programs]

Prerequisite: None

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Course Name: Industrial Electricity for Industrial Maintenance Mechanics
Course Abbreviation: IMM 1813
Classification: Vocational–Technical Core
Description: Instruction in terminology and basic principles of electricity, use of test equipment, safety practices for working around and with electricity, and basic electrical procedures. (3 sch: 1-hr lecture, 4-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Pre/Corequisite: Fundamentals of Electricity (ELT 1192) or Industrial Maintenance Math and Measurement (IMM 1122) or approval by the instructor

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Course Name: Advanced Industrial Electricity for Industrial Maintenance Mechanics
Course Abbreviation: IMM 1823
Classification: Vocational–Technical Core
Description: Advanced skills and knowledge associated with electrical systems in an industrial setting. Content includes instruction in the National Electrical Code, electrical circuits, motors, and estimating expenses for a given project. (3 sch: 6-hr lab) [May be taught as a 90-contact-hour lab in open-entry–open-exit vocational programs]
Pre/Corequisite: Industrial Electricity for Industrial Maintenance Mechanics (IMM 1813) or approval by instructor

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Course Name: Special Project in Industrial Maintenance Mechanic
Course Abbreviation: IMM 191(1–3)
Classification: Vocational–Technical Elective
Description: Practical applications of skills and knowledge gained in other Industrial Maintenance Mechanics courses. The instructor works closely with the student to ensure that selection of a special project enhances the student's learning experiences. Variable credit is awarded on the basis of one semester hour per 45 industrial contact hours. (1–3sch: 45–135 contact hours)
Prerequisite: Consent of instructor

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Course Name: Supervised Work Experience in Industrial Maintenance Mechanics
Course Abbreviation: IMM 192(1–6)
Classification: Vocational–Technical Elective
Description: This course is a cooperative program between industry and education designed to integrate the student's technical studies with industrial experience. Variable credit is awarded on the basis of one semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)
Prerequisite: Consent of instructor and the completion of at least one semester of advanced course work in the Industrial Maintenance Trades program

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Course Name: Equipment Maintenance, Troubleshooting, and Repair
Course Abbreviation: IMM 2114
Classification: Vocational–Technical Core (Associate's Degree); Vocational–Technical Elective (Certificate)
Description: Maintenance and troubleshooting techniques, use of technical manuals and test equipment, and inspection/evaluation/repair of equipment. (4 sch: 1-hr lecture, 6-hr lab)
Prerequisite: By approval of instructor

MEAT MERCHANDISING TECHNOLOGY

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Course Name: Fundamentals of Meat Merchandising
Course Abbreviation: MTV 1114
Classification: Vocational–Technical Core
Description: This course covers the basic fundamentals of meat merchandising including career opportunities, safety requirements, sanitation, equipment and its maintenance, and government regulations. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Identification of Wholesale and Retail Cuts
Course Abbreviation: MTV 1214
Classification: Vocational–Technical Core
Description: This course consists of the identification of wholesale and retail cuts of meat. The course also includes preparation and serving of meat products. Background information is provided on dressing, chilling, storage, sanitation, inspection, grading, curing, and smoking procedures for different types of meat products. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Preparation of Wholesale and Retail Cuts
Course Abbreviation: MTV 1224
Classification: Vocational–Technical Core
Description: This course is the study of breaking carcasses into wholesale boxed cuts of beef, pork, and lamb; preparing basic retail cuts from wholesale boxed cuts; boning procedures; and packaging. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Merchandising of Poultry, Fish, Seafood, and Smoked Meats
Course Abbreviation: MTV 1234
Classification: Vocational–Technical Core
Description: This course includes cutting and merchandising poultry and fish products; merchandising of smoked meat counter; refrigeration; and display techniques of poultry, fish, seafood, and smoked meats. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Display Pricing and Marketing Techniques
Course Abbreviation: MTV 1314
Classification: Vocational–Technical Core

Description: This course includes advanced merchandising techniques including wholesale purchasing, wholesale and retail meat pricing, and gross profit control yield data. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Display Pricing and Marketing Techniques II
Course Abbreviation: MTV 1324
Classification: Vocational–Technical Core
Description: This course includes advanced merchandising procedures including conducting cutting tests and forecasting gross profits. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Advanced Meat Merchandising I
Course Abbreviation: MTV 1414
Classification: Vocational–Technical Core
Description: This course is a study of portion control, nutritional values of red meat and poultry, steps and cycles associated with marketing red meat and poultry, and factors that affect meat prices. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Advanced Meat Merchandising II
Course Abbreviation: MTV 1424
Classification: Vocational–Technical Core
Description: This course is a special study of meat merchandising as it affects the many different phases of the meat industry. The course includes salesmanship and customer relations. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Catering, Food Preparation, and Value Added Products
Course Abbreviation: MTV 1514
Classification: Vocational–Technical Core
Description: This course includes basic information about the catering industry including types of catering services, how to start a business, selling catering services, food safety, and arranging specific catering events. The course also includes basic information about the trend toward marketing value-added products. (4 sch: 8-hr lab)
Prerequisite: None

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Course Name: Food Safety
Course Abbreviation: MTV 1522
Classification: Vocational–Technical Core
Description: This course includes basic information related to food safety. (2 sch: 2-hr lecture)
Prerequisites: Completion of one semester of coursework in PS Meat Merchandising program

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Introduction to Law
Course Abbreviation: LET 1113
Classification: Vocational–Technical Core
Description: This course provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. (3 sch: 3-hr lecture)
Prerequisite: Local college requirements

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Course Name: Legal Research
Course Abbreviation: LET 1213
Classification: Vocational–Technical Core
Description: This course is an introduction to basic sources of law and the methods of legal research, including ethics. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Local college requirements

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Course Name: Family Law
Course Abbreviation: LET 1513
Classification: Vocational–Technical Core
Description: This course is a study of the areas of law pertaining to domestic relations, emphasizing ethics. (3 sch: 3-hr lecture)
Prerequisite: Local college requirements

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Course Name: Wills and Estates
Course Abbreviation: LET 1523
Classification: Vocational–Technical Core
Description: This course is an introduction to the laws of inheritance and estates, basic concepts of estates and wills, probate procedures, and preparation of documents while emphasizing ethics. (3 sch: 3-hr lecture)
Prerequisite: Local college requirements

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Course Name: Legal Writing
Course Abbreviation: LET 1713
Classification: Vocational–Technical Core
Description: This course includes composition of legal communications, briefs, memoranda, and other legal documents with an emphasis on ethical considerations. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Introduction to Law (LET 1113) and Legal Research (LET 1213)

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Course Name: Civil Litigation I
Course Abbreviation: LET 2313
Classification: Vocational–Technical Core
Description: This course presents the litigation process. Emphasis is on the structure of the Mississippi Court System and on gathering information and evidence, summarizing and arranging materials, maintaining docket and file control, developing a litigation case, and interviewing clients and witnesses, using ethical standards. (3 sch: 3-hr lecture)
Prerequisite: Introduction to Law (LET 1113) and Legal Research (LET 1213)

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Course Name: Torts
Course Abbreviation: LET 2323
Classification: Vocational–Technical Core
Description: This course provides instruction in the area of law that deals with civil wrongs and injuries, including intentional wrongs, negligence, and strict liability. It concentrates on the elements of a tort, type of tort, damages, ethics, and remedies. (3 sch: 3-hr lecture)
Prerequisite: Introduction to Law (LET 1113)

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Course Name: Civil Litigation II
Course Abbreviation: LET 2333
Classification: Vocational–Technical Core
Description: This course is designed to continue the study of the litigation process from discovery through appeal. Emphasis is placed on collecting and organizing discovery materials and demonstrating knowledge of the limits placed on discovery by the federal and states rules of civil procedure. The course also includes the trial and appeal phases of litigation, with emphasis on trial preparation and appellate procedure. (3 sch: 3-hr lecture)
Prerequisite: Civil Litigation I (LET 2313)

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Course Name: Real Property I
Course Abbreviation: LET 2453
Classification: Vocational–Technical Core
Description: This course is an introduction to real property law including ownership, transfer of property, liens and encumbrances, and the various types of deeds. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Real Property II
Course Abbreviation: LET 2463
Classification: Vocational–Technical Core

Description: This course examines legal documents related to real property as recorded in the chancery clerk's office, the tax assessor's office, and the circuit clerk's office. It includes compiling a title abstract and completing an assignment to prepare a real estate file from transaction through closing and post-closing implementing ethics. (3 sch: 3-hr lecture)
Prerequisite: Real Property I (LET 2453)

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Course Name: Criminal Law and Procedure
Course Abbreviation: LET 2353
Classification: Vocational–Technical Elective
Description: This course provides an overview of criminal law and the procedures involved in the criminal process. The course focuses on the Mississippi court system, legal terminology involved in a criminal practice, and on gathering information and evidence, using ethical standards. (3 sch: 3-hr lecture)
Prerequisite: Local College Requirement

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Course Name: Contracts
Course Abbreviation: LET 2343
Classification: Vocational–Technical Elective
Description: This course provides instruction in the area of contact law, concentrating on the elements of a valid contract, various types of contracts, the Uniform Commercial Code, and ethical issues in contract law. (3 sch: 3-hr lecture)
Prerequisite: Local College Requirement

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Course Name: Bankruptcy Law
Course Abbreviation: LET 2523
Classification: Vocational–Technical Elective
Description: This course is an introduction to federal bankruptcy law. Emphasis is placed on federal bankruptcy statutes, chapters, and forms. (3 sch: 3-hr lecture)
Prerequisite: Introduction to Law (LET 1113)

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Course Name: Law Office Management
Course Abbreviation: LET 2633
Classification: Vocational–Technical Elective
Description: This course provides practical application of daily legal office skills needed in the legal field, professional enrichment presentations, history of the profession, professional ethics through fact analysis, and an overview of law office management. (3 sch: 3-hr lecture)
Prerequisite: Local college requirements

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Course Name: Special Problem in Paralegal Technology

Course Abbreviation: LET 291(1-3)
Classification: Vocational–Technical Elective
Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Paralegal Technology courses. The instructor and student work closely together to select a topic and establish criteria for completion of the project. (1–3 sch: 2–6-hr lab)
Prerequisites: Consent of Instructor

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Course Name: Internship for Paralegal
Course Abbreviation: LET 2923
Classification: Vocational–Technical Elective
Description: Supervised practical experience in a private law office, courts, government offices, or businesses. Provides students the opportunity to apply theory presented in the classroom in a supervised work setting (3 sch: 135 clock hours)
Prerequisite: All courses as scheduled

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Course Name: Health Care Experience I
Course Abbreviation: PTA 1111
Classification: Vocational–Technical Elective
Description: This course is designed to provide the student with observation of physical therapy activities. The student has the opportunity to gain knowledge of the health-care delivery system and physical therapy's place within that system. (1 sch: 3-hr clinical)
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: Fundamental Concepts of Physical Therapy
Course Abbreviation: PTA 1123
Classification: Vocational–Technical Core
Description: This course is an introduction to the field of physical therapy including role orientation, professional organizational structure, legal and ethical implications, and legislation. Historical patterns in the development of the profession will be explored and medical terminology introduced. (3 sch: 3-hr lecture)
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: PTA Practicum I
Course Abbreviation: PTA 1132
Classification: Vocational–Technical Elective
Description: This course is designed to provide the student with observational time with participation in selected physical therapy activities. (2 sch: 6-hr clinical)
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: PTA Practicum II
Course Abbreviation: PTA 1143
Classification: Vocational–Technical Elective
Description: This course is designed to provide the student with extended observation time with participation in selected physical therapy and/or related activities. (3 sch: 9-hr clinical)
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: Health Care Experience II
Course Abbreviation: PTA 1151
Classification: Vocational–Technical Elective
Description: This course is designed to provide the student with extended observational time with limited participation in physical therapy activities. The student has the

opportunity to gain additional knowledge of the health-care delivery system and physical therapy's place within that system. (1 sch: 3-hr clinical)
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: Fundamental Skills for Physical Therapist Assistants
Course Abbreviation: PTA 1213
Classification: Vocational–Technical Core
Description: This course provides knowledge of topics utilized in the practice of physical therapy. Topics covered will include positioning, draping, transfers, body mechanics, gait training, and standard precautions. Vital signs, first aid, and emergency techniques will also be covered. (3 sch: 2-hr lecture, 2-hr lab)
Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123)

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Course Name: Therapeutic Modalities
Course Abbreviation: PTA 1224
Classification: Vocational–Technical Core
Description: This course is an introduction to the theory and practical application of hydrotherapy, thermotherapy, cryotherapy, light therapy, and mechanotherapy. Emphasis will be placed on the technique of application, indications, and contraindications of modalities. (4 sch: 3-hr lecture, 2-hr lab)
Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Kinesiology (PTA 1314)

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Course Name: Kinesiology
Course Abbreviation: PTA 1314
Classification: Vocational–Technical Core
Description: This course studies individual muscles and muscle functions, biomechanical principles of joint motion, gait analysis, goniometry, and postural assessment. (4 sch: 3-hr lecture, 2-hr lab)
Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123) and Fundamental Skills for Physical Therapist Assistants (PTA 1213)

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Course Name: Therapeutic Exercise and Rehabilitation I
Course Abbreviation: PTA 1324
Classification: Vocational–Technical Core
Description: This course provides an overview of the biochemical and neurophysiological basis and application of various therapeutic exercises. The basics of therapeutic exercise are correlated with specific conditions. This course focuses on rehabilitation techniques in the treatment of a variety of selected conditions. Specialized exercise procedures are emphasized. (4 sch: 3-hr lecture, 2-hr lab)

Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Therapeutic Modalities (PTA 1224), and Kinesiology (PTA 1314)

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Course Name: Seminar I
Course Abbreviation: PTA 1911
Classification: Vocational–Technical Elective
Description: This course presents the opportunity for group assembly on a regular basis to work toward achievement of course objectives. Leadership skills, an understanding of group dynamics, community service, interaction with other health education students, and the practice of reading and interpreting professional literature are emphasized. A desire to continue development of knowledge and skills is stressed.
Prerequisites: Admission to Physical Therapist Assistant Program

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Course Name: Seminar II
Course Abbreviation: PTA 1921
Classification: Vocational–Technical Elective
Description: This course provides the opportunity for group assembly on a regular basis to work to achieve course objectives. Demonstration of leadership skills, an understanding of group dynamics, community service, interaction with other health education students, and the practice of reading and interpreting professional literature are further developed. A desire to continue development of knowledge and skills is emphasized.
Prerequisites: Fundamental Concepts of Physical Therapy (PTA 1123)

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Course Name: Electrotherapy
Course Abbreviation: PTA 2234
Classification: Vocational–Technical Core
Description: This course emphasizes theory and practical application of electrotherapy and other therapeutic procedures. Indications and contraindications of modalities are also discussed. (4 sch: 3-hr lecture, 2-hr lab)
Prerequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), and Kinesiology (PTA 1314)

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Course Name: Therapeutic Exercise and Rehabilitation II
Course Abbreviation: PTA 2334
Classification: Vocational–Technical Core
Description: This course presents theory, principles, and techniques of therapeutic exercise and rehabilitation for primarily neurological conditions. Methods of functional, motor, and sensory assessment and intervention techniques are included. Principles of prosthetics and orthotics, functional training, and other techniques are covered. (4 sch: 3-hr lecture, 2-hr lab)

Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1213), Therapeutic Modalities (PTA 1224), Kinesiology (PTA 1314), Therapeutic Exercise and Rehabilitation I (PTA 1324), and Clinical Education I (PTA 2413)

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Course Name: Clinical Education I
Course Abbreviation: PTA 2413
Classification: Vocational–Technical Core
Description: This course provides supervised clinical experiences in demonstrating the attributes and applying the skills for which students have been deemed competent for the clinical setting. (3 sch: 9-hr clinical)
Prerequisite: Core Physical Therapist Assistant Courses

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Course Name: Clinical Education II
Course Abbreviation: PTA 2424
Classification: Vocational–Technical Core
Description: This is the first of three culminating clinical education experiences (identified in a Normative Model of PTA Education as the first full-time clinical experience) that provide supervised clinical experiences in demonstrating the attributes and applying the skills that prepare students for entry into the physical therapy profession. (4 sch: 12-hr clinical)
Prerequisite: Core Physical Therapist Assistant courses

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Course Name: Clinical Education III
Course Abbreviation: PTA 2434
Classification: Vocational–Technical Core
Description: This is the second of three culminating clinical education experiences that provide supervised clinical experiences in demonstrating the attributes and applying the skills that prepare students for entry into the Physical Therapy profession. (4 sch: 12-hr clinical)
Prerequisite: Core Physical Therapist Assistant courses

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Course Name: Clinical Education IV
Course Abbreviation: PTA 2444
Classification: Vocational–Technical Core
Description: This is the third of three culminating clinical education experiences (identified in a Normative Model of PTA Education as the last full-time clinical experience) that provide supervised clinical experiences in demonstrating the attributes and applying the skills that prepare students for entry into the Physical Therapy profession. (4 sch: 12-hr clinical)
Prerequisite: All Core Physical Therapist Assistant and Clinical Education courses

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Course Name: Medical Conditions and Related Pathology
Course Abbreviation: PTA 2513
Classification: Vocational–Technical Core
Description: This course provides a basic knowledge of selected diseases and conditions encountered in physical therapy practice. Emphasis is on etiology, pathology, and clinical picture of diseases studied. Various physical therapy procedures in each disability are discussed. (3 sch: 3-hr lecture)
Pre/corequisites: Fundamental Concepts of Physical Therapy (PTA 1123), Fundamental Skills for Physical Therapist Assistants (PTA 1314), Kinesiology (PTA 1314), Therapeutic Modalities (PTA 1224), Electrotherapy (PTA 2234), Clinical Education I (PTA 2413), Therapeutic Exercise and Rehabilitation I (PTA 1324), and Therapeutic Exercise and Rehabilitation II (PTA 2334)

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Course Name: Physical Therapy Seminar
Course Abbreviation: PTA 2523
Classification: Vocational–Technical Core
Description: This course represents a synthesis of previous didactic, laboratory, and clinical experiences. Students are directed to explore a topic or area of interest in physical therapy practice. Recognition of the importance of employability skills after graduation is included. (3 sch: 3-hr lecture)
Prerequisite: Four semesters of core Physical Therapist Assistant course work

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Course Name: Seminar III
Course Abbreviation: PTA 2911
Classification: Vocational–Technical Elective
Description: This course further develops the principles and characteristics presented in PTA 1911 and PTA 1921.
Prerequisites: Seminar I (PTA 1911) and Seminar II (PTA 1921)

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Course Name: Foundations
Course Abbreviation: CAV 1116
Classification: Vocational–Technical Core
Description: This course includes site selection, site preparation, site layout, building forms, and construction of foundations. (6 sch: 2-hr lecture, 8-hr lab)
Prerequisites: None

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Course Name: Forming Applications
Course Abbreviation: CAV 1123
Classification: Vocational–Technical Elective
Description: This course includes forming applications for foundations, flatwork, reinforcing concrete, patented forms, and tilt-up wall systems. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: Foundations (CAV 1116)

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Course Name: Blueprint Reading
Course Abbreviation: CAV 1133
Classification: Vocational–Technical Core
Description: This course includes the elements of residential plans and how to prepare a bill of materials from a set of plans. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: None

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Course Name: Floor and Wall Framing
Course Abbreviation: CAV 1236
Classification: Vocational–Technical Core
Description: This course is designed to give the student experience in floor and wall framing. (6 sch: 2-hr lecture, 8-hr lab)
Prerequisites: None

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Course Name: Ceiling and Roof Framing
Course Abbreviation: CAV 1245
Classification: Vocational–Technical Core
Description: This course will apply the techniques of cutting and assembly of framing materials based on predetermined specifications. (5 sch: 1-hr lecture, 8-hr lab)
Prerequisites: None

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Course Name: Interior Finishing and Cabinet Making
Course Abbreviation: CAV 1316
Classification: Vocational–Technical Core
Description: This course includes thermal and sound protection, types of interior ceilings, wall coverings, floor coverings, trim work, and cabinet construction. (6 sch: 2-hr lecture, 8-hr lab)
Prerequisites: None

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Course Name: Roofing
Course Abbreviation: CAV 1413
Classification: Vocational–Technical Core
Description: This course covers types of roofs, types of roofing materials, and their application. Also covered are basic roofing techniques, including material selection, roof styles, cost estimation, and installation procedures. (3 sch: 1-hr lecture, 4-hr lab)
Prerequisites: None

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Course Name: Exterior Finishing
Course Abbreviation: CAV 1513
Classification: Vocational–Technical Core
Description: This course includes the installation and finishing of wall coverings, cornices, and exterior trim. (3 sch: 1-hr lecture, 4-hr lab)
Prerequisites: None

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Course Name: Principles of Multi-Family and Light Commercial Construction
Course Abbreviation: CAV 2113
Classification: Vocational–Technical Core (2-Year Certificate; Associate's Degree)
Description: This course examines the fundamentals of multi-family and light commercial construction. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: None

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Course Name: Advanced Cabinet Making
Course Abbreviation: CAV 2133
Classification: Vocational–Technical Elective
Description: This course includes principles of building and installation of cabinets, drawers, and shelves. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: Interior Finishing and Cabinet Making (CAV 1316)

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Course Name: Advanced Interior Finishing
Course Abbreviation: CAV 2313
Classification: Vocational–Technical Elective
Description: This course includes procedures for advanced ceiling and wall interior finishing and for stair calculation and construction. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisites: Interior Finishing and Cabinet Making (CAV 1316)

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Course Name: Special Problem in Residential Carpentry Technology
Course Abbreviation: CAV 291(1–3)
Classification: Vocational–Technical Elective
Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Residential Carpentry Technology courses. The instructor and student work closely together to select a topic and establish criteria for completion of the project. (1–3 sch: 2- to 6-hr lab)
Prerequisites: Sophomore standing in Residential Carpentry Technology or consent of the instructor

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Course Name: Supervised Work Experience in Residential Carpentry Technology
Course Abbreviation: CAV 292(1–6)
Classification: Vocational–Technical Elective
Description: This course is a cooperative program between industry and education designed to integrate the student's technical studies with industrial experience. Variable credit is awarded on the basis of 1 semester hour per 45 industrial contact hours. (1–6 sch: 3- to 18-hr externship)
Prerequisites: Consent of instructor and completion of at least one semester of advanced course work in Residential Carpentry

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Course Name: Work-Based Learning I, II, III, IV, V, and VI
Course Abbreviation: WBL 191(1–3), WBL 192(1–3), WBL 193(1–3), WBL 291(1–3), WBL 292(1–3), and WBL 293(1–3)
Classification: Free Elective
Description: A structured work-site learning experience in which the student, program area teacher, Work-Based Learning Coordinator, and work-site supervisor/mentor develop and implement an educational training agreement. Designed to integrate the student's academic and technical skills into a work environment. Includes regular meetings and seminars with school personnel for supplemental instruction and progress reviews. (1–3 sch: 3- to 9-hr externship)
Prerequisite: Concurrent enrollment in vocational–technical program area courses

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Course Name: Fundamentals of Surgical Technology
Course Abbreviation: SUT 1113
Classification: Vocational–Technical Core
Description: This is a basic introductory course including hospital and surgical suite organization and environment, history, legal responsibilities, terminology, interpersonal relationships, and biomedical sciences. (3 sch: 3-hr lecture)
Corequisites: All first semester courses

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Course Name: Principles of Surgical Technique
Course Abbreviation: SUT 1216
Classification: Vocational–Technical Core
Description: This course is a comprehensive study of aseptic technique, safe patient care, anesthesia, pharmacology, and surgical techniques. (6 sch: 2-hr lecture, 8-hr lab)
Corequisites: All first semester courses

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Course Name: Surgical Anatomy
Course Abbreviation: SUT 1314
Classification: Vocational–Technical Core
Description: Emphasis is placed on the structure and function of the human body as related to surgery, as well as the application of the principles of surgical anatomy to participation in clinical experience. (4 sch: 4-hr lecture)
Corequisites: All first semester courses

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Course Name: Surgical Microbiology
Course Abbreviation: SUT 1413
Classification: Vocational–Technical Core
Description: This is an introduction to pathogenic microorganisms related to surgery and their effect on wound healing and infection. It includes principles of sterilization and disinfection.
(3 sch: 3-hr lecture)
Corequisites: All first semester courses or other courses determined by the local college and/or program director

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Course Name: Basic and Related Surgical Procedures
Course Abbreviation: SUT 1518
Classification: Vocational–Technical Core
Description: This course includes instruction in regional anatomy, pathology, instrumentation, and surgical techniques in general surgery, gynecology, obstetrics, and

urology. It requires clinical experience in area hospital surgical suites and related departments. (8 sch: 4-hr lecture, 12-hr clinical)
Prerequisites: CPR-Health Care Provider and all first semester courses or other courses determined by the local college and/or program director

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Course Name: Specialized Surgical Procedures
Course Abbreviation: SUT 1528
Classification: Vocational–Technical Core
Description: This course includes instruction in regional anatomy, pathology, instrumentation, and techniques in surgical specialty areas of ear, nose, and throat; eye; oral and maxillofacial surgery; pediatrics; and plastics. This course requires clinical experience in area hospital surgical suite and related departments. (8 sch: 4-hr lecture, 12-hr clinical)
Prerequisites: CPR-health care provider and all first semester courses or other courses determined by the local college and/or program director

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Course Name: Advanced Surgical Procedures
Course Abbreviation: SUT 1538
Classification: Vocational–Technical Core
Description: This course includes instruction in regional anatomy, pathology, instrumentation, and techniques in surgical specialty areas of orthopedics, neurosurgery, thoracic, peripheral vascular, cardiovascular surgery, and employability skills. This course requires clinical experience in area hospital surgical suites and related departments and a comprehensive final examination. (8 sch: 4-hr lecture, 12-hr clinical)
Prerequisites: CPR-health care provider and all second semester courses

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Course Name: Certification and Role Transition
Course Abbreviation: SUT 1703
Classification: Vocational–Technical Elective
Description: An in-depth study of the role of the surgical technologist and review for the certification examination. The course examines liability and legal issues of practice, adapting critical thinking skills to a variety of practice settings, effective team and professional behaviors, continuing education, and ethical issues. Practice on computer simulations is required. (3 sch: 3-hr lecture)
Prerequisite: None

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Course Name: Veterinary Mathematics
Course Abbreviation: VAT 1111
Classification: Vocational–Technical Core
Description: Veterinary Math Calculations provides a consistent approach to computations involved in drug and solution problems. (1 sch: 1-hr lecture)
Prerequisite: None

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Course Name: Vet Lab I
Course Abbreviation: VAT 1113
Classification: Vocational–Technical Core
Description: The course includes the practical application of restraining animals, utilizing both chemical and physical mean. Included in the course are medical terminology and the administration and general knowledge of common drugs and vaccines. It also includes the practical application of sterile techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, pre-anesthetic, anesthesiology, and anesthetic emergencies. Other topics in this course include the practical applications of large animal, exotic, and laboratory animals. (3sch: 6-hr clinical)
Prerequisites: Students successfully be on level three math prior to admission to the program

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Course Name: Office Procedures/Veterinary Terminology
Course Abbreviation: VAT 1122
Classification: Vocational–Technical Core
Description: This course covers topics such as the veterinary technicians' roles in practice management; accounting basics, personnel management, leadership skills, stress management, customer relations, and practice ethics. The course will also include a study of the veterinary medical terms relating to Anatomy and Physiology, diseases, medical procedures, and clinical practice. (2 sch: 2-hr lecture)
Prerequisites: Students successfully be on level three math prior to admission to the program

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Course Name: Vet Lab II
Course Abbreviation: VAT 1123
Classification: Vocational–Technical Core
Description: The course includes the practical application of restraining animals, utilizing both chemical and physical mean. Included in the course are medical terminology and the administration and general knowledge of common drugs and vaccines. It also includes the practical application of sterile techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, preanesthetic,

anesthesiology, and anesthetic emergencies. In this clinical course, other topics include the practical application of large animal, exotic, and laboratory animals. (3sch: 6-hr clinical)
Prerequisites: Successful completion of first semester's VAT courses with a grade of "C" or higher

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Course Name: Animal Restraint and Medication
Course Abbreviation: VAT 1212
Classification: Vocational–Technical Core
Description: Animal restraint and medication is the study and practice of restraining small animals, utilizing both chemical and physical means of safe and humane restraint. Included in the course are basic terminology, usage, administration, and general knowledge of common drugs and vaccines. Students will become familiar with medical terminology. (3 sch: 2-hr lecture, 3-hr clinical)
Prerequisite: None

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Course Name: Animal Anatomy and Physiology
Course Abbreviation: VAT 1314
Classification: Vocational–Technical Core
Description: Animal Anatomy and Physiology introduces the student to basic anatomy and physiology as related to the needs of a veterinary technician. Special emphasis is given to the structure of a selected cadaver, location of specific structures, and functions of these structures. (3 sch: 2-hr lecture, 2-hr lab)
Prerequisite: Successful completion of first semester's VAT courses with a grade of "C" or higher

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Course Name: Surgical and Hospital Techniques
Course Abbreviation: VAT 1413
Classification: Vocational–Technical Core
Description: Surgical and Hospital Techniques is the study and practical application of sterile techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, pre-anesthetic, anesthesiology, and anesthetic emergencies. (3 sch: 3-hr lecture)
Prerequisite: Successful completion of first semester's VAT courses with a grade of "C" or higher

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Course Name: Vet Lab Evaluation
Course Abbreviation: VAT 1513
Classification: Vocational–Technical Core
Description: This course encompasses an evaluation of students who have successfully completed the first year of the hybrid on-line veterinary technology curriculum. The evaluation of students will include the classes of VAT 1122 Office Procedures/Vet Terminology, VAT 1413 Surgical & Hospital Techniques, and VAT 1113 Vet Lab 1, Vat

Animal Anatomy & Physiology, VAT 2112 Pharmacology, VAT 1111 Vet Math and VAT 1123 Vet Lab 2. Students enrolled in the hybrid on-line program will be required to meet with the Hinds Community College faculty and staff on the Raymond campus at a scheduled time during the summer. Students enrolled in the classroom program are not required to meet with the faculty during the summer. (3 sch: 9-hr clinical)
Prerequisite: Successful completion of all academic courses in the veterinary technology curriculum in the first year with an overall GPA of 2.0 and no less than a "C" in all required VAT courses.

* * * * *

Course Name: Veterinary Pharmacology
Course Abbreviation: VAT 2112
Classification: Vocational–Technical Core
Description: The student will be instructed in basic knowledge of various aspects of pharmacology. This will include the area pharmacokinetics, proper handling of controlled substances, dosage calculation, and fluid therapy. (2 sch: 2-hr lecture)
Prerequisites: Successful completion of first year VAT courses with a grade of "C" or higher

* * * * *

Course Name: Animal Health Care
Course Abbreviation: VAT 2113
Classification: Vocational–Technical Core
Description: General health care of small animals including nutrition, emergency care, first aid, animal hygiene, disease detection, and small animal sanitation (3sch: 3-hr lecture)
Prerequisites: Successful completion of first year VAT courses with a grade of "C" or higher

* * * * *

Course Name: Board Examination Review
Course Abbreviation: VAT 2122
Classification: Vocational–Technical Core
Description: Comprehensive review to assist the student in preparation for state and national certifying examinations for the veterinary technicians. The course will review basic science, clinical practices, diagnostics, and ethical concerns. (2 sch: 2-hr lecture)
Prerequisites: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

* * * * *

Course Name: Vet Lab III
Course Abbreviation: VAT 2133
Classification: Vocational–Technical Core
Description: The course includes the practical application of restraining animals, utilizing both chemical and physical mean. Included in the course are medical terminology and the administration and general knowledge of common drugs and

vaccines. It also includes the practical application of sterile techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, preanesthetic, anesthesiology, and anesthetic emergencies. Vet Lab III includes the practical application of large animal, exotic, and laboratory animals. (3 sch: 6-hr clinical)
Prerequisites: Successful completion of first year VAT courses with a grade of "C" or higher

* * * * *

Course Name: Vet Lab IV
Course Abbreviation: VAT 2143
Classification: Vocational–Technical Core
Description: The course includes the practical application of restraining animals, utilizing both chemical and physical mean. Included in the course are medical terminology and the administration and general knowledge of common drugs and vaccines. It also includes the practical application of sterile techniques, preparation of the surgical site, operating room conduct, assisting the surgeon, preanesthetic, anesthesiology, and anesthetic emergencies. Includes practical application of large animal, exotic, and laboratory animals (3 sch: 6-hr clinical)
Prerequisites: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

* * * * *

Course Name: Animal Parasites and Diseases
Course Abbreviation: VAT 2152
Classification: Vocational–Technical Core
Description: Animal Parasites and Diseases will include the study of etiology, symptoms, pathology, transmission, duration, prognosis, prevention, and general knowledge of common parasites and diseases of farm animals and pets. (2 sch: 2-hr lecture)
Prerequisite: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

* * * * *

Course Name: Clinical Pathology
Course Abbreviation: VAT 2163
Classification: Vocational–Technical Core
Description: Clinical Pathology is the study and practical application of veterinary diagnostic aids. The course includes hematology, blood chemistries, serology, urinalysis, fecal analysis, and organ function test. (3 sch: 3-hr lecture)
Prerequisite: Successful completion of first year VAT courses with a grade of "C" or higher

* * * * *

Course Name: Exotic/Lab Animal Procedures
Course Abbreviation: VAT 2172
Classification: Vocational–Technical Core

Description: The student will be instructed in the care and handling of laboratory animals and wild, exotic, and zoo animals. Maintenance of health laboratory animals to include proper nutrition, husbandry, and handling will be emphasized. (2 sch: 2-hr lecture)
Prerequisites: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

* * * * *

Course Name: Internship
Course Abbreviation: VAT 2183
Classification: Vocational–Technical Core
Description: A veterinary technician student will be required to complete a one 6-week internship with an **approved** veterinary practice and /or a laboratory animal facility. The internship provides hands-on experience in a small animal, mixed animal, large animal, or laboratory animal facility. (4 sch: 12-hr clinical)
Prerequisite: Successful completion of all academic courses in the veterinary technology curriculum with an overall GPA of 2.0 and no less than a "C" in all required VAT courses.

* * * * *

Course Name: Large Animal Procedures
Course Abbreviation: VAT 2223
Classification: Vocational–Technical Core
Description: The student will be instructed in the care and handling of equine and food animals. Maintenance of health care to include proper nutrition, husbandry and handling will be emphasized. (3 sch: 3-hr clinical)
Prerequisites: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

* * * * *

Course Name: Principles of Imaging
Course Abbreviation: VAT 2272
Classification: Vocational–Technical Core
Description: Radiology includes general concept of radiology, exposure, positioning, developing techniques, and solving common problems of radiology. Safety is emphasized throughout the course. The course also includes exposure to ultrasound diagnostic. (2 sch: 2-hr lecture)
Prerequisites: Successful completion of first, second, and third semester VAT courses with a grade of "C" or higher

Appendix A: Related Academic Standards[1]

Reading

R1 Interpret Graphic Information (forms, maps, reference sources)
R2 Words in Context (same and opposite meaning)
R3 Recall Information (details, sequence)
R4 Construct Meaning (main idea, summary/paraphrase, compare/contrast, cause–effect)
R5 Evaluate/Extend Meaning (fact/opinion, predict outcomes, point of view)

Mathematics Computation

M1 Addition of Whole Numbers (no regrouping, regrouping)
M2 Subtraction of Whole Numbers (no regrouping, regrouping)
M3 Multiplication of Whole Numbers (no regrouping, regrouping)
M4 Division of Whole Numbers (no remainder, remainder)
M5 Decimals (addition, subtraction, multiplication, division)
M6 Fractions (addition, subtraction, multiplication, division)
M7 Integers (addition, subtraction, multiplication, division)
M8 Percents
M9 Algebraic Operations

Applied Mathematics

A1 Numeration (ordering, place value, scientific notation)
A2 Number Theory (ratio, proportion)
A3 Data Interpretation (graph, table, chart, diagram)
A4 Pre-Algebra and Algebra (equations, inequality)
A5 Measurement (money, time, temperature, length, area, volume)
A6 Geometry (angles, Pythagorean theory)
A7 Computation in Context (whole numbers, decimals, fractions, algebraic operations)
A8 Estimation (rounding, estimation)

Language

L1 Usage (pronoun, tense, subject–verb agreement, adjective, adverb)
L2 Sentence Formation (fragments, run-on, clarity)
L3 Paragraph Development (topic sentence, supporting sentence, sequence)
L4 Capitalization (proper noun, titles)
L5 Punctuation (comma, semicolon)
L6 Writing Conventions (quotation marks, apostrophe, parts of a letter)

Spelling

S1 Vowel (short, long)
S2 Consonant (variant spelling, silent letter)

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[1] CTB/McGraw-Hill LLC. (1994). *Tests of adult basic education, forms 7 and 8.* Monterey, CA: Author. Reproduced with permission of CTB/McGraw-Hill LLC. TABE is a registered trademark of The McGraw-Hill Companies, Inc. Copyright © 1994 by CTB/McGraw-Hill LLC. Reproduction of this material is permitted for educational purposes only.

S3 Structural Unit (root, suffix)

Appendix B: 21st Century Skills[2]

CS1 Global Awareness

- Using 21st century skills to understand and address global issues
- Learning from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
- Promoting the study of non-English language as a tool for understanding other nations and cultures

CS2 Financial, Economic, and Business Literacy

- Knowing how to make appropriate personal economic choices
- Understanding the role of the economy and the role of business in the economy
- Applying appropriate 21st century skills to function as a productive contributor within an organizational setting
- Integrating oneself within and adapting continually to our nation's evolving economic and business environment

CS3 Civic Literacy

- Being an informed citizen to participate effectively in government
- Exercising the rights and obligations of citizenship at local, state, national, and global levels
- Understanding the local and global implications of civic decisions
- Applying 21st century skills to make intelligent choices as a citizen

CS4 Information and Communication Skills

- Information and media literacy skills: Analyzing, accessing, managing, integrating, evaluating, and creating information in a variety of forms and media; understanding the role of media in society
- Communication skills: Understanding, managing, and creating effective oral, written, and multimedia communication in a variety of forms and contexts

CS5 Thinking and Problem-Solving Skills

- Critical thinking and systems thinking: Exercising sound reasoning in understanding and making complex choices, understanding the interconnections among systems
- Problem identification, formulation, and solution: Ability to frame, analyze, and solve problems
- Creativity and intellectual curiosity: Developing, implementing, and communicating new ideas to others, staying open and responsive to new and diverse perspectives

[2] *21st century skills.* (n.d.). Washington, DC: Partnership for 21st Century Skills.

CS6 Interpersonal and Self-Directional Skills

- Interpersonal and collaborative skills: Demonstrating teamwork and leadership, adapting to varied roles and responsibilities, working productively with others, exercising empathy, respecting diverse perspectives
- Self-direction: Monitoring one's own understanding and learning needs, locating appropriate resources, transferring learning from one domain to another

Appendix C: National Educational Technology Standards for Students[3]

T1 Basic operations and concepts
- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

T2 Social, ethical, and human issues
- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

T3 Technology productivity tools
- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

T4 Technology communications tools
- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

T5 Technology research tools
- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

T6 Technology problem-solving and decision-making tools
- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real-world.

[3] *ISTE: National educational technology standards (NETS).* (2000). Retrieved July 13, 2004, from http://cnets.iste.org/

2010 Curriculum Revisions by Program

Industry advisory team members from colleges throughout the state were asked to give input related to changes to be made to each curriculum framework. Specific comments related to soft skills, occupational-specific skills, and safety were solicited and utilized. Additionally, instructors and Advisory Committee members from colleges throughout the state were also asked to give input on changes to be made to the curriculum framework.

Aviation Maintenance Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards *OR* Mississippi Department of Education Subject Area Testing Program Academic Standards
- 21st Century Skills
- Federal Aviation Regulations, Part 147, Aviation Maintenance Technician Schools (Airframes and Power Plants)

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the April 25, 2010, curriculum revision meeting include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The Recommended Tools and Equipment list was updated.

Banking and Finance Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 9 and 10* Academic Standards
- 21st Century Skills
- MarkEd Career Path Standards for the Finance Cluster

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum include the following:

- Competencies and objectives were aligned to the national banking and finance standards.
- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- Personal Finance (BFT 2713) was created as an elective course.
- The Recommended Tools and Equipment list was updated.

Computer Servicing Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- *CTB/McGraw-Hill LLC Tests of Adult Basic Education, Forms 7 and 8* Academic Standards
- 21st Century Skills
- CompTIA A+ Practical Application (2009 edition) Objectives and the CompTIA A+ Essentials (2009 edition) Objectives

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum during the curriculum revision meetings that took place March 10-12, 2010, include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The Recommended Tools and Equipment list was updated.
- The national standards were updated to reflect the most current listing: CompTIA A+ Practical Application (2009 edition) objectives and the CompTIA A+ Essentials (2009 edition) objectives
- Operating Platforms (CST 1333) was renamed Operating Systems (CST 1333). Competencies were updated to reflect this new language change.
- Fundamentals of Data Communications (CST 1413) was changed to Networking I (CST 1214). An additional competency was added to the course and is as follows:
    - Investigate physical topologies.
        - Identify and compare various topologies such as bus, ring, star, and tree.
        - Evaluate the strengths and weaknesses of current network protocols including wireless and satellite-based solutions.
- A new course, Networking II (CST 2223), was added to the curriculum. Competencies for this course include the following:
    - Review basic network principles.
    - Discuss and explain IP classes.
    - Explain and solve subnetting problems.
    - Examine the principles and purpose of routing, switching, bridging, and gateways.
    - Test and analyze networks.
- Microprocessors (EET 1324) was removed from the certificate and associate degree course sequences and replaced with a technical elective.
- The pre/corequsities for Computer Servicing Lab I (CST 2113) were changed from Basic Computer Hardware (CST 1123) or Microprocessors (EET 1324) to Basic Computer Hardware (CST 1123) and Basic Electronics (CST 1114).
- Diagnosing and Troubleshooting (CST 2134) had its course name changed to PC Diagnostics and Troubleshooting (CST 2134).
- Three electives were added to the curriculum: Solid State Devices and Circuits (EET 1334), Linear Integrated Circuits (EET 2334), Microprocessors (EET 1324), and Electronic Communications (EET 2414).

Construction Equipment Operation Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards *OR* Mississippi Department of Education Subject Area Testing Program Academic Standards
- 21st Century Skills
- *Contren Heavy Equipment Operations* levels 1, 2, and 3

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the March 2, 3, and 4, 2010 curriculum revision meeting include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The Recommended Tools and Equipment list was updated.

Drafting and Design Cluster Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards *OR* Mississippi Department of Education Subject Area Testing Program Academic Standards
- 21st Century Skills
- American Design Drafting Association Skill Set Standards

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the February, 2010 curriculum revision meeting include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- Competencies and objectives related to the revised standards were added or changed.
- The references list was updated.
- The Recommended Tools and Equipment list was updated.
- Fundamentals of Drafting (DDT 1113) was changed from 4 to 3 scheduled credit hours.
- A new Land Surveying Option was added to the curriculum.
- Architectural Design II (DDT 2623) is now a pre/corequisite for Fundamentals of Multimedia (DDT 2713).

Graphic and Print Communications Curriculum Changes

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; and changes were made as needed

and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the June 7, 2010, curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- Objectives updated in GPV 1212, GPV 1414, GPV 1424, and GPV 1723
- Course description, competencies, and objectives updated in GPV 1712
- Standards updated in Appendix A

Heating Ventilation AC and Refrigeration Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards
- 21st Century Skills
- Contren Best Practices

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the April 6–7, 2006 curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The competency wording was strengthened using Bloom's Taxonomy list.
- The Recommended Tools and Equipment list was reviewed.

Industrial Maintenance Trades Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards
- 21st Century Skills
- Contren Best Practices

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the March 23, 2010 curriculum revision meeting include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The following changes to the core and electives were made:
    - Power Tool Applications (IMM 1224) moved from core requirements to the elective list.

    - Industrial Electricity for Industrial Maintenance Mechanics (IMM 1813) moved from the second semester of the first year to the first semester of the first year.
    - Advanced Industrial Electricity for Industrial Maintenance Mechanics (IMM 1823)
    - Computer fundamental electives were revised to include more options for accepting computer-related courses from various major areas.
- The competency wording was strengthened using Bloom's Taxonomy list.
- The Recommended Tools and Equipment list was reviewed and updated.

Meat Merchandising Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, forms 7 and 8 Academic Standards*
- 21st Century Skills
- National Restaurant Association's ServSafe Course Content

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the April 27–29, 2010, curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- ServSafe industry standards were added at the competency level.
- Depth of Knowledge (DOK) levels were added to the objective level.
- Food Safety (MTV 1521) is now Food Safety (MTV 1522). An hour of lecture time was added to this course.
- The course name for MTV 1514 changed from Catering and Value Added Products to Catering, Food Preparation, and Value Added Products.
- Resources were added to all courses.
- The Recommended Tools and Equipment list was reviewed.

Paralegal Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, forms 7 and 8 Academic Standards*
- 21st Century Skills
- National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in

the curriculum framework. Specific changes made to the curriculum at the February 23–24, 2010 curriculum revision meeting included the following:

- The committee reviewed the competencies and objectives to ensure accuracy and appropriateness. Additionally the writing team aligned each competency to the *National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections* standards.
- Students were having scheduling problems because the Introduction to Law (LET 1113) course was a prerequisite to Legal Research (LET 1213). The writing team decided to remove the prerequisite requirement from the Legal Research (LET 1213) course.
- The committee changed the 2-hr lab, 2-hr lecture requirement to a 3-hr lecture in Civil Litigation I (LET 2313).
- The committee changed Civil Litigation II (LET 2333) to a Vocational-Technical elective to a Vocational–Technical Core.
- The committee changed Real Property II (LET 2463) to a vocational–technical elective to a vocational–technical core.
- The committee removed Business Communications (BOT 2813) from the suggested course sequence. This course was included in the list of elective courses.
- The committee removed two elective courses from the suggested course sequence. This changed the program from a 72-hr program to a 66-hr program.
- The committee developed an elective called Criminal Law and Procedures (LET 2353).
- The committee developed an elective called Contracts (LET 2343).
- The committee updated the Recommended Tools and Equipment list.

Physical Therapist Assistant Curriculum

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, forms 7 and 8 Academic Standards*
- 21st Century Skills
- Evaluation Criteria for Accreditation of Education Programs for the Preparation of Physical Therapist Assistants

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the March 2, 2010, curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- Depth of Knowledge levels were added at the objective level.
- National standards were updated to reflect the most recent version. The standards listed in the courses were updated based on these changes.
- The Recommended Tools and Equipment list was updated.

Residential Carpentry Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 7 and 8* Academic Standards
- 21st Century Skills
- Contren Best Practices for Residential Carpentry Programs

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process, and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum took place April 29 – 30, 2010 and include the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- The Recommended Tools and Equipment list was updated.

Surgical Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, forms 7 and 8 Academic Standards*
- 21st Century Skills
- Standards Based on the Core Curriculum for Surgical Technology

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the February 23–24, 2010, curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- Aligned standards were reviewed to ensure accuracy and appropriateness.
- The Recommended Tools and Equipment list was updated.
- An articulation agreement between Secondary Allied Health and Postsecondary Surgical Technology was formulated and appears in detail later in this section.
- The suggested references for each course were updated.
- The clock hours for Principles of Surgical Technique were changed from 1-hr lecture, 10-hr lab to become 2-hr lecture, 8-hr lab.
- Verbiage was added to the corequisite requirements for Surgical Microbiology, Basic and Related Surgical Procedures, Specialized Surgical Procedures, and Advanced Surgical Procedures allow for variance of the course sequencing among different programs.

Veterinary Assisting Technology Curriculum Changes

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, forms 7 and 8 Academic Standards*
- 21st Century Skills
- Standards and Guidelines for American Veterinary Medical Association Committee on Veterinary Technician Education and Activities Skills List

Industry and instructor comments, along with current research, were considered by the curriculum revision team during the revision process; and changes were made as needed and appropriate. Many of the skills and topics noted in the research were already included in the curriculum framework. Specific changes made to the curriculum at the February 26, 2010, online curriculum revision meeting included the following:

- Competencies and objectives were reviewed to ensure accuracy and appropriateness.
- A second year of courses was added to reflect the conversion of the program from a one plus one curriculum to a 2-year curriculum.
- The Recommended Tools and Equipment list was updated.