

Revised Mississippi
Curriculum
Frameworks for
Vocational-Technical Programs

Postsecondary
EXECUTIVE SUMMARY

2000

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REVISED POSTSECONDARY CURRICULUM FRAMEWORKS
2000 EDITION
EXECUTIVE SUMMARY

In order to survive in today's global economy, businesses and industries have had to adopt new practices and procedures. Total quality management, statistical process control, participatory management, and other concepts of high performance work organizations are practices by which successful companies survive. Employers now expect their employees to be able to read, write, and communicate effectively; solve problems and make decisions; and interact with the technologies that are prevalent in today's workplace. Vocational-technical education 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 on 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. Departments 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 which focus on the development of occupational competencies. Each vocational-technical course in this sequence has been written using a common format which 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:
 - Vocational-technical core - A required vocational-technical course for all students.
 - AOC Core - A required vocational-technical course for a particular option within a program area.
 - Vocational-technical elective - An elective vocational-technical course.
 - Related academic course - An academic course which provides academic skills and knowledge directly related to the program area.
 - Academic core - An academic course which is required as part of the requirements for an Associate degree.

- Description - A short narrative which 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 prerequisite 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 percent of the time allocated to each course. For example, in a four semester hour course consisting of 30 hours lecture and 120 hours of laboratory activities, approximately 22 hours of lecture and 90 hours of lab should be taken by the competencies and suggested objectives identified in the course framework. The remaining 25 percent of each course should be developed at the local district level and may reflect:
 - 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 which 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 which 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 worksite learning activities, to better prepare individuals in the courses for their chosen occupational area.
- 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 which 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 area.

COMMUNITY/JUNIOR COLLEGE VOCATIONAL-TECHNICAL PROGRAMS
2000 REVISION

Agricultural and Related Technology

- Agricultural Business and Management Cluster
 - Agribusiness Management Technology
 - Animal Husbandry Technology
 - Field Crops Technology
 - Catfish Production Technology

Business and Computer Technology

- Office Systems Technology
- Paralegal Technology

Family and Consumer Sciences

- Clothing and Textiles Services

Health Science Technology

- Dental Hygiene Technology
- Emergency Medical Technology - Paramedic
- Ophthalmic Technology
- Pharmacist Technician
- Physical Therapist Assistant

Marketing and Related Technology

- Banking & Finance Technology

Trade, Industrial, and Related Technology

- Automotive Vehicles and Accessories Marketing
- Barber/Stylist
- Cosmetology
- Electrical Technology
- Graphic Design Technology
- Graphics and Print Communications
- Jewelry and Watch Repair Cluster
- Plumber and Pipefitter/Steamfitter

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PROGRAM DESCRIPTIONS
AND
SUGGESTED COURSE SEQUENCES

AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY

AGRIBUSINESS MANAGEMENT CONCENTRATION

PROGRAM DESCRIPTION

The Agribusiness Management option is a program designed to provide students with training in a variety of agriculturally related areas. The program is designed for students desiring to enter the broad range of jobs related to the management of agricultural enterprises and the marketing and sales of agricultural supplies and products. The program involves both technical and academic courses, with provisions for related activities along with on-the-job training (internships).

Emphasis is placed on plant, animal, and soil sciences, along with training in management techniques in production, marketing, and sales. This program relies upon computer agricultural business simulations.

PROGRAM REQUIREMENTS

The Associate of Applied Science degree is awarded upon successful completion of 64 semester credit hours of coursework. Students completing the following 32 semester credit hours are eligible to receive a certificate in Agricultural Business and Management:

| | |
|--|--|
| 3 sch Applied Agricultural Economics (AGT 2263) | 4 sch Applied Soils-Conservation and Use (AGT 1714) |
| 4 sch Applied Principles of Animal Production (AGT 1214) | 3 sch Fundamentals of Microcomputer Applications (CPT 1113)* |
| 3 sch Applied Principles of Plant Production (AGT 1313) | 1 sch Survey of Agricultural Technology (AGT 1111) |
| 3 sch Principles of Agricultural Management (AGT 1413) | 8 sch Technical Electives |
| 3 sch Principles of Agricultural Marketing (AGT 1513) | |

* Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

**AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY
AGRIBUSINESS MANAGEMENT CONCENTRATION**

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Agricultural Business and Management Technology**

FIRST YEAR

| | |
|--|--|
| 4 sch Applied Principles of Animal Production (AGT 1214) 3 sch Applied Principles of Plant Production (AGT 1313) 3 sch Fundamentals of Microcomputer Applications (CPT 1113)* 3 sch Math/Science Elective 1 sch Survey of Agricultural Technology (AGT 1111, 1121, 1131, 1141) | 3 sch Applied Agricultural Economics (AGT 2263) 4 sch Applied Soils-Conservation and Use (AGT 1714) 3 sch Written Communications Elective 6 sch Technical Electives <hr style="width: 10%; margin-left: 0;"/> 16 sch |
| <hr style="width: 10%; margin-left: 0;"/> 14 sch | |

SECOND YEAR

| | |
|--|---|
| 3 sch Humanities/Fine Arts Elective 3 sch Principles of Agricultural Management (AGT 1413) 3 sch Social/Behavioral Science Elective 6 sch Technical Electives | 3 sch Oral Communications Elective 3 sch Principles of Agricultural Marketing (AGT 1513) 3-6 sch Supervised Agricultural Experience [AGT 292(1-6)] 9 sch Technical Electives |
| <hr style="width: 10%; margin-left: 0;"/> 15 sch | <hr style="width: 10%; margin-left: 0;"/> 18-21 sch |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Agriculture Business and Management 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.

*** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

TECHNICAL ELECTIVES - AGRIBUSINESS MANAGEMENT

| | | | |
|-------|---|---------|--|
| 3 sch | Agricultural Machinery and Shop Management (AGT 2563) | 3 sch | Fish Management (AGT 2513) |
| 3 sch | Agricultural Sales (AGT 2213) | 3 sch | Fitting/Grooming/Judging (AGT 1813) |
| 3 sch | Agricultural Records (AGT 1613) | 3 sch | Forage and Pasture Crops (AGT 2613) |
| 3 sch | Agricultural Structures (AGT 2113) | 4 sch | Forest Surveying (FOT 2124)* |
| 3 sch | Applied Animal Nutrition (AGT 2663) | 3 sch | Horse Production (AGT 2863) |
| 3 sch | Applied Business Mathematics (BOT 1313) | 3 sch | Human Relations in Agribusiness (AGT 2313) |
| 3 sch | Business Law (BAD 2413) | 3 sch | Poultry Production (AGR 2613) |
| 3 sch | Business Mathematics (BAD 1313) | 3 sch | Science and Technology (ATE 1113) |
| 3 sch | Beef Production I (AGT 2713) | 1-3 sch | Special Problem in Agricultural Business and Management [AGT 291(1-3)] |
| 3 sch | Beef Production II (AGT 2723) | 3 sch | Swine Production (AGT 2813) |
| 3 sch | Introduction to Computer Concepts (CSC 1113) | 3 sch | Vegetable Production (AGR 1333) |
| 3 sch | Crop Production (General) (AGT 2363) | | |

* Students may substitute Elementary Surveying (DDT 1413).

AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY

ANIMAL HUSBANDRY CONCENTRATION

PROGRAM DESCRIPTION

The Animal Husbandry Concentration of Agricultural Business and Management Technology is designed to prepare the student for a career in the animal husbandry industry. Students will receive instruction in feeding, breeding, management, and health care of cattle, sheep, horses, swine, and poultry. In addition, the student will complete course work dealing with agricultural business management, marketing, record keeping, feed crops, and soils. This program relies upon computer agricultural business simulations.

PROGRAM REQUIREMENTS

The Associate of Applied Science degree may be granted to students who complete a minimum of 64 semester credit hours of coursework in the program. Upon completion of the following 32 semester credit hours, the student may receive a certificate in Agricultural Business and Management:

| | | | |
|-------|--|-------|---|
| 4 sch | Applied Principles of Animal Production (AGT 1214) | 3 sch | Fundamentals of Microcomputer Applications (CPT 1113)** |
| 3 sch | Applied Principles of Plant Production (AGT 1313) | 3 sch | Math/Science Elective |
| 4 sch | Applied Soils-Conservation and Use (AGT 1714) | 3 sch | Principles of Agricultural Management (AGT 1413) |
| 3 sch | Agricultural Machinery and Shop Management (AMT 2563)* | 3 sch | Principles of Agricultural Marketing (AGT 1513) |
| | | 1 sch | Survey of Agricultural Technology (AGT 1111) |
| | | 5 sch | Technical Electives |

** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

**AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY
ANIMAL HUSBANDRY CONCENTRATION**

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Agricultural Business and Management Technology**

FIRST YEAR

| | |
|---|---|
| 4 sch Applied Principles of Animal Production (AGT 1214) | 4 sch Applied Soils-Conservation and Use (AGT 1714) |
| 3 sch Applied Principles of Plant Production (AGT 1313) | 3 sch Agricultural Machinery and Shop Management (AGT 2563) |
| 3 sch Fundamentals of Microcomputer Applications (CPT 1113)*** | 3 sch Principles of Agricultural Marketing (AGT 1513) |
| 3 sch Math/Science Elective | 3 sch Written Communications Elective |
| 3 sch Principles of Agricultural Management (AGT 1413) | 3 sch Technical Electives |
| 1 sch Survey of Agricultural Technology (AGT 1111, 1121, 1131, 1141) | <hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 16 sch |
| <hr style="width: 50px; margin-left: 0; margin-right: auto;"/> 17 sch | |

SECOND YEAR

| | |
|---|---|
| 3 sch Applied Animal Nutrition (AGT 2663) | 3 sch Animal Reproduction (AGT 1913) |
| 3 sch Technical Electives | 6 sch Technical Electives |
| 3 sch Beef Production I (AGT 2713) | 3 sch Beef Production II (AGT 2723) |
| 3 sch Humanities/Fine Arts Elective | 3 sch Horse Production (AGT 2863) |
| 3 sch Social/Behavioral Science Elective | 3 sch Oral Communications Elective |
| <hr style="width: 50px; margin-left: 0; margin-right: auto;"/> 15 sch | <hr style="width: 50px; margin-left: auto; margin-right: 0;"/> 18 sch |

- * Students who lack entry level skills in math, English, science, etc., will be provided related studies.
- ** Baseline competencies are taken from the high school Agriculture Business and Management 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.
- *** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

TECHNICAL ELECTIVES - ANIMAL HUSBANDRY

| | |
|--|---|
| <p>3 sch Agricultural Records (AGT 1613)</p> <p>3 sch Agricultural Sales (AGT 2213)</p> <p>3 sch Applied Agricultural Economics (AGT 2263)</p> <p>3 sch Business Mathematics (BAD 1313)</p> <p>3 sch Introduction to Computer Concepts (CSC 1113)</p> <p>3 sch Crop Production (General) (AGT 2363)</p> <p>3 sch Fish Management (AGT 2513)</p> <p>3 sch Fitting/Grooming/Judging (AGT 1813)</p> <p>3 sch Forage and Pasture Crops (AGT 2613)</p> | <p>3 sch Human Relations in Agribusiness (AGT 2313)</p> <p>3 sch Poultry Production (AGR 2613)</p> <p>3 sch Science and Technology (ATE 1113)</p> <p>1-3 sch Special Problem in Agricultural Business and Management [AGT 291(1-3)]</p> <p>1-6 sch Supervised Agricultural Experience [AGT 292(1-6)]</p> <p>3 sch Swine Production (AGT 2813)</p> |
|--|---|

AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY

FIELD CROPS CONCENTRATION

PROGRAM DESCRIPTION

The Field Crops Concentration of the Agricultural Business and Management Technology program is designed to provide students with a common core of management skills and additional training related to the production of agricultural crops. Emphasis in the second year is placed on production of field crops and weed and insect control. This program relies upon computerized agricultural business simulations. Elective courses in the second year allow the students to tailor their educational program to their occupational objectives.

PROGRAM REQUIREMENTS

The Associate of Applied Science degree is awarded upon successful completion of a minimum of 64 semester credit hours. Students completing the following 32 semester credit hours are eligible to receive a certificate in Agricultural Business and Management:

| | | | |
|-------|--|-------|--|
| 3 sch | Applied Agricultural Economics (AGT 2263) | 3 sch | Fundamentals of Microcomputer Applications (CPT 1113)* |
| 4 sch | Applied Principles of Animal Production (AGT 1214) | 3 sch | Math/Science Elective |
| 3 sch | Applied Principles of Plant Production (AGT 1313) | 3 sch | Principles of Agricultural Management (AGT 1413) |
| 4 sch | Applied Soils- Conservation and Use (AGT 1714) | 3 sch | Principles of Agricultural Marketing (AGT 1513) |
| 1 sch | Survey of Agricultural Technology (AGT 1111) | 5 sch | Technical Electives |

* Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

**AGRICULTURAL BUSINESS AND MANAGEMENT TECHNOLOGY
FIELD CROPS CONCENTRATION**

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Agricultural Business and Management Technology**

FIRST YEAR

| | | | |
|--|--|--|--|
| 4 sch | Applied Principles of Animal Production (AGT 1214) | 3 sch | Applied Agricultural Economics (AGT 2263) |
| 3 sch | Applied Principles of Plant Production (AGT 1313) | 4 sch | Applied Soils-Conservation and Use (AGT 1714) |
| 3 sch | Fundamentals of Microcomputer Applications (CPT 1113)*** | 3 sch | Principles of Agricultural Management (AGT 1413) |
| 3 sch | Math/Science Elective | 3 sch | Principles of Agricultural Marketing (AGT 1513) |
| 1 sch | Survey of Agricultural Technology (AGT 1111, 1121, 1131, 1141) | 3 sch | Written Communications Elective |
| | | <hr style="width: 20px; margin: 0 auto;"/> | |
| <hr style="width: 20px; margin: 0 auto;"/> | | 16 sch | |
| 14 sch | | | |

SECOND YEAR

| | | | |
|--|---------------------------------|--|---|
| 3 sch | Insects and Controls (AGT 2463) | 3 sch | Agricultural Machinery and Shop Management (AGT 2563) |
| 3 sch | Oral Communications Elective | 6 sch | Technical Electives |
| 3 sch | Grain Crops (AGT 2383) | 3 sch | Fiber and Oilseed Crops (AGT 2373) |
| 3 sch | Weed Control (AGT 2413) | 3 sch | Humanities/Fine Arts Elective |
| 4 sch | Technical Electives | 3 sch | Social/Behavioral Science Elective |
| | | <hr style="width: 20px; margin: 0 auto;"/> | |
| <hr style="width: 20px; margin: 0 auto;"/> | | 18 sch | |
| 16 sch | | | |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Agriculture Business and Management 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.

*** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

TECHNICAL ELECTIVES - FIELD CROPS

| | | | |
|-------|--|---------|--|
| 3 sch | Agricultural Records (AGT 1613) | 3 sch | Human Relations in Agribusiness (AGT 2313) |
| 3 sch | Agricultural Sales (AGT 2213) | 4 sch | Principles of Chemistry I (CHE 1314) |
| 3 sch | Agricultural Structures (AGT 2113) | 3 sch | Poultry Production (AGR 2613) |
| 3 sch | Applied Business Mathematics (BOT 1313) | 3 sch | Science and Technology (ATE 1113) |
| 3 sch | Business Law (BAD 2413) | 1-3 sch | Special Problem in Agricultural Business and Management [AGT 291(1-3)] |
| 3 sch | Business Mathematics (BAD 1313) | 3 sch | Supervised Agricultural Experience [AGT 292(1-6)] |
| 3 sch | Beef Production I (AGT 2713) | 3 sch | Vegetable Production (AGR 1333) |
| 3 sch | Beef Production II (AGT 2723) | 3 sch | Water Quality Management (CFT 1143) |
| 3 sch | Introduction to Computer Concepts (CSC 1113) | | |
| 3 sch | Crop Production (General) (AGT 2363) | | |
| 3 sch | Fish Management (AGT 2513) | | |
| 4 sch | General Chemistry Survey (Basic) (CHE 1114) | | |

PROGRAM DESCRIPTION

CATFISH PRODUCTION TECHNOLOGY

The Catfish Production Technology program provides classroom and laboratory instruction in commercial catfish culture and harvesting. Included is instruction in feeding, culturing, protecting, and propagating commercially produced catfish.

Graduates of the Catfish Production Technology program at the 12-month level are awarded a Certificate of Catfish Production and those who complete 24 months are awarded the Associate of Applied Science Degree in Catfish Production Technology. Employment opportunities for graduates of the certificate program may exist as skilled laborers in firms specializing in the production of commercial catfish and graduates of the technical program may qualify as technicians or managers of such enterprises.

CATFISH PRODUCTION CERTIFICATE

SUGGESTED COURSE SEQUENCE* Baseline Competencies for Catfish Production Technology**

FIRST YEAR

| | |
|---|--|
| <p>3 sch Catfish Health Management I (CFT 1113)</p> <p>3 sch Fundamentals of Microcomputer Applications (CPT 1113)***</p> <p>3 sch Catfish Production Management I (CFT 1213)</p> <p>3 sch Water Quality Management (CFT 1313)</p> <p>3 sch Aquacultural Equipment Operation and Maintenance I (CFT 1413)</p> <hr style="width: 10%; margin-left: 0;"/> <p>15 sch</p> | <p>3 sch Catfish Health Management II (CFT 1123)</p> <p>3 sch Catfish Production Management II (CFT 1223)</p> <p>3 sch Aquacultural Equipment Operation and Maintenance II (CFT 1423)</p> <p>3 sch Spawning and Hatchery Techniques (CFT 1613)</p> <p>3 sch Technical Elective</p> <hr style="width: 10%; margin-left: 0;"/> <p>15 sch</p> |
|---|--|

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** Baseline competencies are taken from the high school Agriculture Business and Management 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.

*** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

CATFISH PRODUCTION TECHNOLOGY

SUGGESTED COURSE SEQUENCE*
Baseline Competencies for Catfish Production Technology**

FIRST YEAR

| | | | |
|---------------|---|---------------|--|
| 3 sch | Catfish Health Management I (CFT 1113) | 3 sch | Catfish Health Management II (CFT 1123) |
| 3 sch | Catfish Production Management I (CFT 1213) | 3 sch | Catfish Production Management II (CFT 1223) |
| 3 sch | Water Quality Management (CFT 1313) | 3 sch | Aquacultural Equipment Operation and Maintenance II (CFT 1423) |
| 3 sch | Aquacultural Equipment Operation and Maintenance I (CFT 1413) | 3 sch | Spawning and Hatchery Techniques (CFT 1613) |
| 3 sch | Fundamentals of Microcomputer Applications (CPT 1113) *** | 3 sch | Written Communications Elective |
| 3 sch | Math/Science Elective | <u>15 sch</u> | |
| <u>18 sch</u> | | | |

SECOND YEAR

| | | | |
|---------------|---|---------------|--|
| 3 sch | Agricultural Machinery and Shop Management (AGT 2563) | 3 sch | Applied Agricultural Economics (AGT 2263) [Principles of Economics (Macroeconomics) (ECO 2113) or Principles of Economics (Microeconomics) (ECO 2123) may substitute] |
| 3 sch | Principles of Agricultural Management (AGT 1413) | 3 sch | Professional Development (BOT 1213) |
| 3 sch | Humanities/Fine Arts Elective | 3 sch | Principles of Agricultural Marketing (AGT 1513) |
| 3 sch | Oral Communications Elective | 3 sch | Social/Behavioral Science Elective |
| 3 sch | Technical Elective*** | 4 sch | Technical Elective |
| <u>15 sch</u> | | <u>16 sch</u> | |

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

- ** Baseline competencies are taken from the high school Agriculture Business and Management 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.
- *** Students who are computer literate may substitute Science and Technology (ATE 1113), Introduction to Computer Concepts (CSC 1113), or another acceptable computer course.

TECHNICAL ELECTIVES

Agricultural Records (AGT 1613)
Applied Principles of Animal Production (AGT 1214)
Applied Principles of Plant Production (AGT 1313)
Applied Soils-Conservation and Use (AGT 1714)
Business Accounting (BOT 1433)
Business Law (BAD 2413)
Computer Concepts (CSC 1113)
Computerized Accounting (BOT 2413)
Human Relations in Agribusiness (AGT 2313)
Principles of Accounting I (ACC 1213)
Weed Control (AGT 2413)
Science and Technology (ATE 1113)
Special Problem in Catfish Production Technology [CFT 291(1-3)]
Supervised Work Experience in Catfish Production Technology [CFT 292(1-6)]
Note: Supervised Work Experience may take place in the community college catfish production facilities and/or with area farmers, fingerlings producers, custom harvesters, and live haulers. This course may be scheduled during any semester or summer term.
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)]
Zoology (BIO 2414) [Survey of Chemistry (CHE 1114) or General Chemistry I (CHE 1213) and Laboratory I (CHE 1211) may be substituted with approval]

PROGRAM DESCRIPTION

The Business and Office program includes a basic core of courses designed to prepare a student for a variety of entry-level positions through selection of a concentration of 67 to 70 semester credit hours (sch) in the following areas:

Office Systems Technology
Accounting Technology
Medical Office Technology
Microcomputer Technology

The curriculum is designed to give each student:

- C a broad overview of the entire office function, not only his/her individual position
- C an opportunity to investigate the integration of systems--people and technology
- C an exposure to career options available within the office which involves the coordination of people, equipment, and resources as well as an opportunity to recognize the relationship between worker and supervisor
- C a concentration of skills in a specific area

Business and Office is a two-year program of study which requires courses in the vocational-technical core, designated areas of concentration, and the academic core. The Associate of Applied Science degree is earned upon the successful completion of the Business and Office curriculum. Successful completion of the first year of this program entitles a student to receive an Office Assistant certificate.

**BUSINESS AND OFFICE CLUSTER
OFFICE SYSTEMS TECHNOLOGY***

SUGGESTED COURSE SEQUENCE**

Baseline Competencies for Business and Office Technology***

FIRST YEAR

| | | | |
|--------|---------------------------------------|--------|-----------------------------------|
| 3 sch | Keyboard Concepts(BOT 1113) | 3 sch | Business Communication (BOT 1723) |
| 3 sch | Operating Systems (BOT 1813) | 3 sch | Written Communications Elective |
| 3 sch | Mechanics of Communication (BOT 1713) | 3 sch | Word Processing (BOT 1133) |
| 3 sch | Applied Business Math (BOT 1313) | 3 sch | Business Accounting (BOT 1333) |
| 3 sch | Professional Development (BOT 1213) | 3 sch | Keyboard Skillbuilding (BOT 1123) |
| 3 sch | Records Management (BOT 1413) | 3 sch | Electronic Spreadsheet (BOT 1323) |
| <hr/> | | <hr/> | |
| 18 sch | | 18 sch | |

(Certificate Program Exit Point)

SECOND YEAR

| | | | |
|--------|-------------------------------------|--------|---|
| 3 sch | Computerized Accounting (BOT 2343) | 3 sch | Integrated Computer Applications (BOT 2833) |
| 3 sch | Desktop Publishing (BOT 2143) | 3 sch | Administrative Office Procedures (BOT 2223) |
| 3 sch | Database Management (BOT 2453) | 3 sch | Humanities/Fine Arts Elective |
| 3 sch | Communication Technology (BOT 2823) | 3 sch | Social/Behavioral Science Elective |
| 3 sch | Math/Science Elective | 3 sch | Machine Transcription (BOT 2513) |
| 3 sch | Oral Communications Elective | | |
| <hr/> | | <hr/> | |
| 18 sch | | 15 sch | |

- * Total hours required for completion of this program may be reduced through articulation agreements with local High Schools/Vocational Centers. Local demands for Notetaking skills may be implemented through Continuing Ed., Adult Ed., Industry Services, etc.
- ** Students who lack entry level skills in math, English, science, etc., will be provided related studies.
- *** Baseline competencies are taken from the high school 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.

PROGRAM DESCRIPTION PARALEGAL TECHNOLOGY

The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a legal assistant in courts, corporation, private law firms, trust departments of banks, and government agencies.

Paralegal Technology is a two-year program of study which requires 12 semester hours of vocational-technical core, 15 semester hours of academic core, 27 semester hours in area of concentration, 12 semester hours of related vocational-technical electives, and 6 semester hours of related academic courses. The Associate of Applied Science degree is earned upon successful completion of the Paralegal Technology curriculum.

LEGAL CLUSTER
PARALEGAL TECHNOLOGY

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Business and Office Technology**

FIRST YEAR

| | |
|--|---|
| 3 sch Written Communication Elective 3 sch Applied Business Math (BOT 1313) 3 sch Legal Systems and Terminology (LET 1113) 3 sch Humanities/Fine Arts Elective 3 sch Elective*** | 3 sch Legal Environment of Business (BAD 2413) 3 sch Word Processing (BOT 1133) 3 sch Family Law (LET 1513) 3 sch Legal Research (LET 1213) 3 sch Business Communication (BOT 1723) 3 sch Wills and Estates (LET 1523) |
| 15 sch | 18 sch |

SECOND YEAR

| | |
|--|---|
| 3 sch Math/Natural Science Elective 3 sch Real Property I (LET 2453) 3 sch Legal Writing (LET 1713) 3 sch Bankruptcy Law (LET 2523) 3 sch Criminal Justice Elective 3 sch Elective*** | 3 sch Oral Communication Elective 3 sch Civil Litigation I (LET 2313) 3 sch Elective*** 3 sch Elective*** 3 sch Torts (LET 2323) 3 sch Social/Behavioral Science Elective |
| 18 sch | 18 sch |

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

** Baseline competencies are taken from the high school 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.

*** Real Property II (LET 2463), Internship for Paralegal (LET 2923), Paralegal Skills and Applications (LET 2633), Civil Litigation II (LET 2333) or other approved related technical course or academic course.

PROGRAM DESCRIPTION

CLOTHING AND TEXTILES SERVICES

This program prepares individuals for entry-level occupations concerned with clothing and textiles services including but not limited to construction; fabric, fabric design, and fabric care; pattern design; principles of clothing construction and selection; fitting and alterations of ready-to-wear garments; custom tailoring; clothing maintenance; home furnishings; and textiles testing.

CLOTHING AND TEXTILES SERVICES

SUGGESTED COURSE SEQUENCE*
Baseline Competencies for Clothing and Textiles Services**

FIRST YEAR

| | | | |
|-------|---|-------|--------------------------------|
| 4 sch | Garment Construction (CTV 1114) | 3 sch | Alterations (CTV 1123) |
| 3 sch | Equipment Use and Care (CTV 1213) | 4 sch | Tailoring (CTV 1134) |
| 3 sch | Textiles (CTV 1223) | 3 sch | Fashion Design (CTV 1143) |
| 3 sch | Fabric and Accessory Design (CTV 1233) | 3 sch | Home Furnishings (CTV 1413) |
| 3 sch | Modeling and Grooming (CTV 1313) | 2 sch | Elective*** |
| | | <hr/> | 15 sch |
| <hr/> | 16 sch | | |

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** Baseline competencies are taken from the high school Clothing and Textile Services 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.

*** Electives:

Supervised Work Experience in Clothing and Textiles Services [CTV 292(1-6)]

Special Problem in Clothing and Textiles Services [CTV 291(1-3)]

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)]

PROGRAM DESCRIPTION

DENTAL HYGIENE TECHNOLOGY

The Dental Hygiene Technology Program is a general education and clinical dental hygiene experience to prepare one for a career in the dental hygiene profession. All phases of dental hygiene education are covered and practiced by clinical experience. CPR-Health Care Provider is a prerequisite for the program. The curriculum requires a minimum of 85 semester hours of study. The program requires 50 hours of dental hygiene courses and 32-33 academic hours leading to an Associate Degree in Dental Hygiene plus an additional 3 hour elective. A graduate will be eligible to take the examination of the National Board of Dental Examiners as well as individual state board examinations for dental hygiene.

The vocational-technical courses in the following list are required in the Dental Hygiene Technology curriculum:

- 5 semester credit hours (sch) Fundamentals of Dental Hygiene
- 4 sch Dental Radiology
- 5 sch Clinical Dental Hygiene I
- 2 sch Dental Anatomy
- 2 sch Head and Neck Anatomy
- 3 sch Dental Hygiene Materials
- 2 sch Oral Histology and Embryology
- 5 sch Clinical Dental Hygiene II
- 2 sch Periodontics
- 2 sch Dental Pharmacology
- 6 sch Clinical Dental Hygiene III
- 3 sch Community Dental Health
- 2 sch Dental Ethics/Law
- 1 sch Dental Hygiene Seminar I
- 1 sch Dental Hygiene Seminar II
- 1 sch Dental Hygiene Seminar III
- 1 sch Dental Hygiene Seminar IV
- 3 sch General/Oral Pathology

The following academic courses are required in the Dental Hygiene Technology curriculum:

- 4 sch Anatomy and Physiology I (BIO 2514)
- 4 sch Anatomy and Physiology II (BIO 2524)
- 3 sch Math/Science Elective*
- 3 sch Written Communications Elective
- 3-4 sch Microbiology (BIO 2923 or 2924)
- 3 sch Social/Behavioral Science Elective**
- 3 sch Humanities/Fine Arts Elective
- 3 sch Oral Communications Elective
- 3 sch Principles of Nutrition (HEC 1233 or 1253)

General Psychology I (PSY 1513)

- * College Algebra is required by national standards.
- ** Introduction to Sociology I (SOC 2113) is required by national standards.

An additional 3-hour elective should be selected from the following list:

English Composition II (ENG 1113)
Introduction to Chemistry (CHE 1113)
General Chemistry I (CHE 1213)
General Chemistry Laboratory I (CHE 1211)
Introduction to Computer Concepts (CSC 1113)
Fundamentals of Microcomputer Applications (CPT 1113)

DENTAL HYGIENE TECHNOLOGY
SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Dental Hygiene Technology**

FIRST YEAR

| | | | |
|----------------------------|---|----------------------------|--|
| 5 sch | Fundamentals of Dental Hygiene (DHT 1115) | 4 sch | Anatomy and Physiology II (BIO 2524) |
| 2 sch | Dental Anatomy (DHT 1212) | 5 sch | Clinical Dental Hygiene I (DHT 1415) |
| 4 sch | Dental Radiology (DHT 1314) | 3-4 sch | Microbiology (BIO 2923 or 2924) |
| 1 sch | Dental Hygiene Seminar I (DHT 1911) | 2 sch | Periodontics (DHT 1512) |
| 4 sch | Anatomy and Physiology I (BIO 2514) | 1 sch | Dental Hygiene Seminar II (DHT 1921) |
| 3 sch | Math/Science Elective*** | 2 sch | Oral Histology and Embryology (DHT 1232) |
| <hr style="width: 100%;"/> | | 2 sch | Head and Neck Anatomy (DHT 1222) |
| 19 sch | | <hr style="width: 100%;"/> | |
| | | 19-20 sch | |

SUMMER TERM

| | |
|----------------------------|--|
| 3 sch | Written Communications Elective |
| 3 sch | Social/Behavioral Science Elective**** |
| 3 sch | General Psychology I (PSY 1513) |
| 3 sch | Humanities/Fine Arts Elective |
| <hr style="width: 100%;"/> | |
| 12 sch | |

SECOND YEAR

| | | | |
|--------|--|--------|---|
| 5 sch | Clinical Dental Hygiene II (DHT 2425) | 6 sch | Clinical Dental Hygiene III (DHT 2436) |
| 3 sch | Dental Hygiene Materials (DHT 2613) | 3 sch | Community Dental Health (DHT 2813) |
| 3 sch | General/Oral Pathology (DHT 2233) | 2 sch | Dental Ethics/Law (DHT 2922) |
| 3 sch | Principles of Nutrition (HEC 1233) or Nutrition (HEC 1253) | 3 sch | Oral Communications Elective |
| 2 sch | Dental Pharmacology (DHT 2712) | 1 sch | Dental Hygiene Seminar IV (DHT 2941) |
| 1 sch | Dental Hygiene Seminar III (DHT 2931) | 3 sch | Elective |
| | | <hr/> | |
| | | 18 sch | |
| <hr/> | | | |
| 17 sch | | | |

- * Students who lack entry level skills in math, English, science, etc. 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.
- *** College Algebra (MAT 1313) is required by national standards.
- **** Introduction to Sociology (SOC 2113) is required by national standards.

APPROVED ELECTIVES FOR DENTAL HYGIENE TECHNOLOGY:

English Composition II (ENG 1123)
 Introduction to Chemistry (CHE 1113)
 General Chemistry I (CHE 1213)
 General Chemistry Laboratory I (CHE 1211)
 Introduction to Computer Concepts (CSC 1113)
 Fundamentals of Microcomputer Applications (CPT 1113)

PROGRAM DESCRIPTION

EMERGENCY MEDICAL TECHNOLOGY - PARAMEDIC

Paramedics have fulfilled prescribed requirements by a credentialing agency to practice the art and science of out-of-hospital medicine in conjunction with medical direction. Through performance of assessments and providing medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting.

Paramedics possess the knowledge, skills, and attitudes consistent with the expectations of the public and the profession. Paramedics recognize that they are an essential component of the continuum of care and serve as linkages among health resources.

Paramedics strive to maintain high quality, reasonable cost health care by delivering patients directly to appropriate facilities. As an advocate for patients, paramedics seek to be proactive in affecting long-term health care by working in conjunction with other provider agencies, networks, and organizations. The emerging roles and responsibilities of the paramedic include public education, health promotion, and participation in injury and illness prevention programs. As the scope of service continues to expand, the paramedic will function as a facilitator of access to care, as well as an initial treatment provider.

Paramedics are responsible and accountable to medical direction, the public, and their peers. Paramedics recognize the importance of research and actively participate in the design, development, evaluation, and publication of research. Paramedics seek to take part in life-long professional development and peer evaluation, and assume an active role in professional and community organizations.

The EMT-P training program is a postsecondary program drawing its students from individuals already possessing a valid EMT-Basic state certification and having Anatomy and Physiology I and II with a grade point average of 2.0. Each student must be 18 years or older and possess a high school diploma or GED certificate.

This program is a minimum of five semesters requiring a minimum of 1200 clock hours of classroom instruction, 250 clock hours of clinical internship, and 250 clock hours of field internship.

Classroom instruction is comprehensive including a working knowledge of all anatomy, physiology, and pathophysiological processes as well as competency-based instruction in assessment and management skills required for treatment of life-threatening problems in the adult, pediatric, and geriatric patient. Clinical internship requires participation in care of patients in a hospital emergency department that provides medical control to ALS providers in the field and, according to availability, CCU, ICU, labor and delivery suite, operating room, psychiatric ward, pediatric ward, and geriatric

ward. Field internship is done with an ambulance service and/or rescue service providing advanced life support services to the community.

A student successfully completing the program will receive an associate degree from the college and be eligible to take the National Registry's Exam as an EMT-Paramedic. For professional accreditation purposes, these academic courses must include the following:

- 3 sch Social Science/Behavioral Science
- 3 sch Written Communications Elective
- 3 sch Oral Communications Elective
- 3 sch Fine Arts/Humanities Elective
- 3 sch Math/Science Elective (Anatomy & Physiology I & II were recommended to satisfy this requirement.)

This training program is sanctioned by the Mississippi State Board of Health. The course meets or exceeds those standards established by the National Highway Traffic Safety Administration/U.S. Department of Transportation.

EMERGENCY MEDICAL TECHNOLOGY - PARAMEDIC

SUGGESTED COURSE SEQUENCE*

State certified EMT-Basic and Anatomy & Physiology I and II are prerequisites (by state law and national standards) for entrance into this program.

Baseline Competencies for Emergency Medical Technology**

FIRST YEAR

| | | | |
|--------|--|-------|-----------------------------------|
| 3 sch | Preparatory (EMT 1123) | 3 sch | Special Considerations (EMT 1423) |
| 3 sch | Pathophysiology (EMT 1213) | 3 sch | Clinical Internship II (EMT 1523) |
| 3 sch | Airway Management and Ventilation (EMT 1313) | 3 sch | Pharmacology (EMT 1613) |
| 4 sch | Patient Assessment (EMT 1414) | 4 sch | Trauma I (EMT 1714) |
| 1 sch | Clinical Internship I (EMT 1511) | 4 sch | Acute Cardiology (EMT 1814) |
| 3 sch | Written Communications | | |
| | Elective | <hr/> | 17 sch |
| <hr/> | | | |
| 17 sch | | | |

SUMMER

| | |
|--------|---------------------------------------|
| 5 sch | Maternal/Child Emergencies (EMT 1435) |
| 3 sch | Oral Communications |
| 2 sch | Clinical Internship III (EMT 1532) |
| <hr/> | |
| 10 sch | |

SECOND YEAR

| | | | |
|--------|------------------------------------|-------|-----------------------------------|
| 1 sch | Clinical Internship IV (EMT 2541) | 4 sch | Field Internship II (EMT 2564) |
| 2 sch | Field Internship I (EMT 2552) | 5 sch | Medical Emergencies II (EMT 2845) |
| 4 sch | Trauma II (EMT 2724) | 5 sch | EMS Team Management (EMT 2915) |
| 4 sch | Advanced Cardiology (EMT 2824) | 3 sch | Fine Arts/Humanities Elective |
| 4 sch | Medical Emergencies I (EMT 2834) | <hr/> | 17 sch |
| 3 sch | Social/Behavioral Science Elective | | |
| <hr/> | | | |
| 18 sch | | | |

- * Students who lack entry level skills in math, English, science, etc. 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.

OPHTHALMIC TECHNOLOGY

PROGRAM DESCRIPTION

Ophthalmic Technology is a two-year technical program. Upon successful completion of the program, the student is awarded the Associate of Applied Science Degree. The curriculum requires a minimum of 66 semester hours of courses. The minimum requirements are 44 semester hours of vocational-technical courses in ophthalmic technology and 22 hours of academic courses.

Opticianry is defined as "the art and science of optics as applied to compounding, filling, and adapting of ophthalmic prescriptions, products and accessories." Opticianry describes the preparation (making) of ophthalmic lenses, setting them into spectacle frames, and dispensing (fitting and delivering) them to the wearer. These acts include a large number of activities or trades, ranging from the mechanical act of lens grinding to the personal service of the selection, fitting, and adjusting of a pair of glasses to an individual's face, selling, and public relations.

OPHTHALMIC TECHNOLOGY
SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | |
|---|--|
| 3 sch Ophthalmic Optics I (OPT 1113) | 3 sch Ophthalmic Optics II (OPT 1123) |
| 4 sch Optics Laboratory Techniques I (OPT 1214) | 4 sch Optics Laboratory Techniques II (OPT 1224) |
| 3 sch Laboratory Management and Inventory Control I (OPT 1313) | 3 sch Laboratory Management and Inventory Control II (OPT 1323) |
| 3 sch Written Communications Elective | 3 sch Ophthalmic Dispensing I (OPT 1413) |
| 3 sch Social/Behavioral Science Elective | 3 sch Math/Natural Science Elective |
| 16 sch | 16 sch |

SECOND YEAR

| | |
|--|---|
| 3 sch Ophthalmic Dispensing II (OPT 2423) | 3 sch Ophthalmic Dispensing III (OPT 2433) |
| 3 sch Optical Theory and Instrumentation (OPT 2513) | 3 sch Dispensing Clinic II (OPT 2623) |
| 3 sch Dispensing Clinic I (OPT 2613) | 3 sch Fundamentals of Microcomputer Technology (CPT 1113) or Introduction to Computers (CSC 1113) |
| 3 sch Humanities/Fine Arts Elective | 3 sch Oral Communications Elective |
| 3 sch Principles of Accounting I (ACC 1213) | 3 sch Entrepreneurship (MMT 2513) (Local district option) |
| 1 sch Accounting Practice Case (ACC 1211) | |
| 16 sch | 15 sch |

SUMMER SEMESTER

6 sch Externship (OPT 2916)

6 sch

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

PROGRAM DESCRIPTION

PHARMACIST TECHNICIAN

The Pharmacist Technician curriculum is a two-year program of study designed to prepare the student for employment and advancement in the pharmacy field. The curriculum requires a minimum of 64 hours of courses in order to obtain an Associate of Applied Science degree. CPR-Health Care Provider is a prerequisite for the program.

Pharmacy technicians assist and support licensed pharmacists in providing health care and medications to patients. Pharmacy technicians must work under the direction of a licensed pharmacist. Employers include pharmacies based in hospitals, retail settings, home health care, nursing homes, clinics, nuclear medicine settings, and mail order prescription companies. Nontraditional employers for pharmacy technicians include medical insurance companies, medical computer software companies, drug manufacturing companies, drug wholesale companies, and food processing companies. The one requirement all these pharmacy technician duties have in common is a need for absolute accuracy and precision in the technical and clerical aspects of this career.

Upon graduation from the program, the student is eligible to take the National Pharmacy Technician Certification Exam.

PHARMACIST TECHNICIAN

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Pharmacist Technician**

FIRST YEAR

| | | | |
|-----------------|--|-----------------|------------------------------------|
| 2 sch | Pharmacy Technician Fundamentals (PHM 1112) | 4 sch | Pharmacology I (PHM 1424) |
| 3 sch | Computer Applications in Pharmacy (PHM 1213) | 5 sch | Pharmacy Practice (PHM 1525) |
| 4 sch | Pharmacy Math and Dosage Calculations (PHM 1314) | 3 sch | Math/Science Elective |
| 3 sch | Pharmacy Anatomy and Physiology (PHM 1413) | 3 sch | Social/Behavioral Science Elective |
| 3 sch | Pharmaceutical Compounding (PHM 1513) | 3 sch | Pharmacy Law (PHM 1123) |
| 3 sch | Written Communications Elective | <u> </u> | |
| <u> </u> | | 18 sch | |
| 18 sch | | | |

SECOND YEAR

| | | | |
|-----------------|--|--------------|--------------------------------------|
| 4 sch | Pharmacology II (PHM 2434) | 3 sch | Drug Information Research (PHM 2543) |
| 4 sch | Nonprescription Drugs and Devices (PHM 2534) | 4 sch | Practicum II (PHM 2624) |
| 4 sch | Practicum I (PHM 2614) | 3 sch | Pharmacy Transition (PHM 2813) |
| 5 sch | Pharmacy Management (PHM 2715) | 3 sch | Oral Communications Elective |
| <u> </u> | | <u>3 sch</u> | Humanities/Fine Arts Elective |
| 17 sch | | 16 sch | |

* Students who lack entry level skills in math, English, science, etc. 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.

PROGRAM DESCRIPTION

PHYSICAL THERAPIST ASSISTANT

The Physical Therapist Assistant curriculum is a two-year program of study that prepares a physical therapist assistant to perform interventions under the supervision of 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 addition to the General Admission Requirements of the college, each PTA program has specific additional program admission requirements.

This curriculum conforms to standards as published by the American Physical Therapy Association.

**PHYSICAL THERAPIST ASSISTANT
SUGGESTED COURSE SEQUENCE 1***

Baseline Competencies for Physical Therapist Assistant**

FIRST YEAR

| | |
|--|---|
| <p>3 sch Math/Science Elective</p> <p>3 sch Written Communications Elective</p> <p>4 sch Anatomy and Physiology I (BIO 1514)</p> <p>3 sch Social/Behavioral Science Elective***</p> <p>3 sch Fundamental Concepts of Physical Therapy (PTA 1123)</p> <p>0-3 sch PTA Elective (District option) (PTA 1111, PTA 1132, PTA 1143, PTA 1151)</p> <hr style="width: 20%; margin-left: 0;"/> <p>16-19 sch</p> | <p>3 sch Oral Communications Elective</p> <p>4 sch Anatomy and Physiology II (BIO 1524)</p> <p>3 sch Fundamental Skills for Physical Therapist Assistants (PTA 1213)</p> <p>4 sch Kinesiology (PTA 1314)</p> <p>0-2 sch PTA Elective (District option)</p> <hr style="width: 20%; margin-left: 0;"/> <p>14-16 sch</p> |
|--|---|

**SUMMER TERM (8 WEEKS)
(Two four-week sessions)**

| |
|---|
| <p>4 sch Therapeutic Modalities (PTA 1224)</p> <p>4 sch Therapeutic Exercise and Rehabilitation I (PTA 1324)</p> <p>3 sch Humanities/Fine Arts elective</p> <hr style="width: 20%; margin-left: 0;"/> <p>11 sch</p> |
|---|

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) |
| 3 sch | Therapeutic Exercise/Rehabilitation II (PTA 2333) | 4 sch | Clinical Education III (PTA 2434) |
| 3 sch | Medical Conditions and Related Pathology (PTA 2513) | 4 sch | Clinical Education IV (PTA 2444) |
| 0-1 sch | PTA Elective (District Option) | _____ | |
| <hr/> | | 15 sch | |
| 13 -14 | sch | | |

* Students who lack entry level skills in math, English, science, etc. 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.

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

APPROVED ELECTIVES FOR PHYSICAL THERAPY ASSISTANT:

- General Psychology (PSY 1513)
- Oral Communication (SPT 1113)

PHYSICAL THERAPIST ASSISTANT

SUGGESTED COURSE SEQUENCE 2*

Baseline Competencies for Physical Therapist Assistant**

| | | | |
|---------|---|---------|---------------------------------------|
| 3 sch | Math/Science Elective | 3 sch | Humanities/Fine Arts Elective |
| 3 sch | Written Communications Elective | 6 sch | Electives |
| 4 sch | Anatomy & Physiology I (BIO 1514) | 4 sch | Anatomy & Physiology II (BIO 1524) |
| 3 sch | Oral Communications Elective | 0-3 sch | PTA Elective (District option) |
| 3 sch | Social/Behavioral Science Elective*** | <hr/> | 13-16 sch |
| 0-3 sch | PTA Elective (District option) (PTA 1111, PTA 1132, PTA 1143, PTA 1151) | | |
| <hr/> | 16-19 sch | | |

FIRST SUMMER TERM

| | |
|-------|---|
| 3 sch | Fundamental Concepts of Physical Therapy (PTA 1123) |
| 3 sch | Fundamental Skills for Physical Therapist Assistants (PTA 1213) |
| <hr/> | 6 sch |

SECOND YEAR

| | | | |
|-----------|---|--------|--|
| 4 sch | Kinesiology (PTA 1314) | 4 sch | Electrotherapy (PTA 2234) |
| 4 sch | Therapeutic Modalities (PTA 1224) | 3 sch | Therapeutic Exercise and Rehabilitation II (PTA 2333) |
| 4 sch | Therapeutic Exercise and Rehabilitation I (PTA 1324) | 3 sch | Medical Conditions and Related Pathology (PTA 2513) |
| 3 sch | Clinical Education I (PTA 2413) | 4 sch | Clinical Education II (PTA 2424) |
| 0-1 sch | PTA Elective (District Option) | 3 sch | Physical Therapy Seminar (PTA 2523) |
| <hr/> | | <hr/> | |
| 15-16 sch | | 17 sch | |

SECOND SUMMER TERM:

| | |
|-------|-----------------------------------|
| 4 sch | Clinical Education III (PTA 2434) |
| 4 sch | Clinical Education IV (PTA 2444) |
| <hr/> | |
| 8 sch | |

* Students who lack entry level skills in math, English, science, etc. 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.

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

APPROVED ELECTIVES FOR PHYSICAL THERAPY ASSISTANT:

General Psychology (PSY 1513)
Oral Communication (SPT 1113)

BANKING AND FINANCE TECHNOLOGY

PROGRAM DESCRIPTION

The Banking and Finance Technology program is a two-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/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.

BANKING AND FINANCE TECHNOLOGY

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | | | |
|--------|---|--------|--|
| 3 sch | Written Communications Elective | 3 sch | Approved Elective [†] |
| 3 sch | Fundamentals of Microcomputer Applications (CPT 1113) | 3 sch | Oral Communications Elective |
| 3 sch | Principles of Banking (BFT 1213) | 3 sch | Electronic Spreadsheet (BOT 1323) |
| 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) |
| 1 sch | Professional Development in Financial Institutions I (BFT 1411)** | 3 sch | Mechanics of Communication (BOT 1713) |
| | | 1 sch | Professional Development in Financial Institutions II (BFT 1421)** |
| <hr/> | | <hr/> | |
| 16 sch | | 19 sch | |

SECOND YEAR

| | | | |
|--------|---|--------|--|
| 3 sch | Principles of Accounting I (ACC 1213) | 3 sch | Humanities/Fine Arts Elective |
| 3 sch | Math/Science Elective | 3 sch | Financial Management (BFT 2533) |
| 3 sch | Bank Teller Operations (BFT 2613) | 4 sch | Special Project in Banking and Finance Technology (BFT 2914) |
| 3 sch | Business Policy (BFT 2113) | 3 sch | Social/Behavioral Science Elective |
| 3 sch | Business Communication (BOT 1723) | 3 sch | Approved Elective [†] |
| 1 sch | Professional Development in Financial Institutions III (BFT 2431)** | 1 sch | Professional Development in Financial Institutions IV (BFT 2441)** |
| <hr/> | | <hr/> | |
| 16 sch | | 17 sch | |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** May be scheduled in increment hours of one to four semester hours.

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

† APPROVED ELECTIVES:

Administrative Office Procedures (BOT 2223)
Principles of Economics (Macroeconomics) (ECO 2113)
Income Tax Accounting (BOT 2423)
Payroll Accounting (BOT 2433)
Principles of Accounting II (ACC 1223)
Business Accounting (BOT 1433)
Computerized Accounting (BOT 2413)
Commercial Lending (BFT 1323)
Business Finance (BFT 2523)
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))

PROGRAM DESCRIPTION

AUTOMOTIVE VEHICLES AND ACCESSORIES MARKETING

Automotive Vehicles and Accessories Marketing includes theory, laboratory, shopwork, and other specialized learning experiences relative to receiving, stocking, selling, and shipping merchandise in the automotive aftermarket. Included is the study of mathematical procedures related to business operation, engine theory and operation, automotive systems, the use of office machines, auto parts store management, customer relations, and computer-based instruction.

Specific training will enable the student to ascertain the correct part required by the customer, advise the customer according to the description given, read various catalogs to determine the stock number and price, measure engine parts, mix paint, display merchandise, determine correct interchange parts, accept telephone orders, and take inventory.

Instruction emphasizes distribution of parts and service within the automotive aftermarket in establishments such as distributors, jobbers, retail part stores, specialty shops, car dealers, independent garages, fleet garages, and service stations.

Automotive Vehicles and Accessories Marketing is a one-year certificate program designed to prepare automotive parts salespersons for entry level positions in automotive parts marketing.

AUTOMOTIVE VEHICLES AND ACCESSORIES MARKETING

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | |
|---|--|
| <p>2 sch Orientation and Safety Procedures (AAV 1112)</p> <p>6 sch Operational Procedures (AAV 1126)</p> <p>4 sch Automotive Systems I (AAV 1214)</p> <p>4 sch Automotive Systems II (AAV 1224)</p> <hr style="width: 100px; margin-left: 0;"/> <p>16 sch</p> | <p>6 sch Catalog Information Systems (AAV 1316)</p> <p>2 sch Merchandising (AAV 1322)</p> <p>4 sch Internal Operations (AAV 1414)</p> <p>4 sch Internal Sales (AAV 1424)</p> <hr style="width: 100px; margin-left: 0;"/> <p>16 sch</p> |
|---|--|

Summer Term

1-6 sch Supervised Work Experience in Automotive Vehicles and Accessories
Marketing [AAV 192(1-6)]

OR

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)]

1-6 sch

*Students who lack entry level skills in math, English, science, etc., will be provided related studies.

PROGRAM DESCRIPTION

BARBER/STYLIST

This postsecondary instructional program prepares individuals to cut, shampoo, and style hair. Special attention is given to hygiene, safety, skin, scalp diseases, and equipment sterilization. Included is the study of sales, business management, law, and customer relationships. Instruction qualifies students for the State Barber Board certification examination.

PROGRAM REQUIREMENTS

Mississippi laws governing the profession of barbering require completion of not less than 1500 hours of study at a barbering school approved by the State Board of Barber Examiners to become qualified to receive a certificate of registration to practice barbering. The academic requirements may be satisfied by successfully completing three semesters of study and documentation of a High School diploma or GED. Students must have also satisfactorily passed The Ability to Benefit Exam (TABE). A total of 48 semester credit hours is included in the Barber/Stylist program.

The curriculum for Barber/Stylist is based upon data as collected from curricula guides, State Board documents, input from the business community, and a revision team. The listing of tasks from these sources 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 which 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 should be in place which informs all students of their progress throughout the program.
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 community.

BARBER/STYLIST

SUGGESTED COURSE SEQUENCE*

| First Semester | | Second Semester | |
|----------------|--|-----------------|---|
| 8 sch | Basic Practices in Barbering (BAV 1118) | 8 sch | Fundamental Practices in Barbering II (BAV 1318) |
| 8 sch | Fundamental Practices in Barbering I (BAV 1218) | 8 sch | Intermediate Practices in Barbering I (BAV 1418) |
| 16 sch | | 16 sch | |

Third Semester

| | |
|--------|---|
| 8 sch | Intermediate Practices in Barbering II (BAV 1518) |
| 8 sch | Advanced Practices in Barbering (BAV 1618) |
| 16 sch | |

*Students who lack entry level skills in math, English, science, etc. will be provided related studies.

NOTE: The ratio of lab hours to lecture hours for Barber/Stylist is 3 to 1.

COSMETOLOGY

PROGRAM DESCRIPTION

This instructional program prepares individuals to care for hair, nails, and skin with emphasis on hygiene, sanitation, customer relations, and salon management. Satisfactory completion of the courses qualifies students for the Mississippi State Board of Cosmetology certification examination.

PROGRAM REQUIREMENTS

The curriculum is designed to comply with the standards of the Mississippi State Board of Cosmetology and the requirement for 1500 contact hours for students. Students are required to receive 230 hours of theory (a minimum of six hours per week throughout the entire period of instruction, conducted in a separate classroom by a licensed instructor), 1200 hours of supervised skill preparation and clinic work, and 70 hours assigned at the instructor's discretion as needs of individual students dictate. Successful completion of the program entitles students to a Cosmetology Certificate and qualifies them for licensing examinations as cosmetologists, estheticians, manicurists, or wig specialists conducted by the Mississippi State Board of Cosmetology. A total of 44 semester credit hours is included in the Cosmetology program.

The curriculum for Cosmetology is based upon data as collected from curricula guides, state board documents, input from business, and a revision team. The listing of tasks within the *Laws, Rules, and Regulations of the Mississippi State Board of Cosmetology* serves as the 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 has included 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 which 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 should be in place which informs all students of their progress throughout the program.
3. It is recognized that individual courses will differ across 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 business.

COSMETOLOGY

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| First Semester | | Second Semester | |
|----------------|--|-----------------|---|
| 7 sch | Fundamentals of Cosmetology (COV 1117) | 5 sch | Cosmetology Theory II (COV 1225) |
| 3 sch | Cosmetology Theory I (COV 1213) | 1 sch | Artistry of Artificial Hair (COV 1411) |
| 1 sch | Scalp and Hair Treatment (COV 1311) | 3 sch | Permanent Waves (COV 1333) |
| 1 sch | Hair Shaping (COV 1321) | 5 sch | Hair Coloring and Lightening (COV 1345) |
| 2 sch | Artistry of Hair Design/Wet Hairstyling (COV 1372) | 2 sch | Chemical Hair Relaxing (COV 1352) |
| 2 sch | Manicure and Pedicure (COV 1512) | | |
| | | <hr/> | |
| <hr/> | | 16 sch | |
| 16 sch | | | |

Summer Term

| | |
|--------|-----------------------------------|
| 6 sch | Cosmetology Theory III (COV 1236) |
| 2 sch | Facials and Makeup (COV 1612) |
| 2 sch | Thermal Techniques (COV 1362) |
| 2 sch | Salon Management (COV 1712) |
| <hr/> | |
| 12 sch | |

*Students who lack entry level skills in math, English, science, etc. will be provided related studies.

NOTE: The ratio of lab hours to lecture hours for Cosmetology is 3 to 1. This program requires a minimum of 850 minutes per semester hour.

NAIL TECHNICIAN OPTION

PROGRAM DESCRIPTION

This instructional program prepares individuals to care for nails with emphasis on hygiene, sanitation, customer relations, and salon management. Satisfactory completion of the courses qualifies students for the Mississippi State Board of Cosmetology, Manicure/Nail Technician certification examination.

PROGRAM REQUIREMENTS

The curriculum is designed to comply with the standards of the Mississippi State Board of Cosmetology and the requirement for 250 contact hours for students. Students are required to receive 60 hours of theory and 190 hours of supervised skill preparation and clinic work. Successful completion of the program entitles students to receive a Nail Technician Certificate and qualifies them for licensing examinations conducted by the Mississippi State Board of Cosmetology. A total of 15 semester credit hours is included in the Nail Technician Option.

The curriculum for Nail Technician is based upon data as collected from curricula guides, state board documents, input from business, and a revision team. The listing of tasks within the *Laws, Rules, and Regulations of the Mississippi State Board of Cosmetology* serves as the 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 has included 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 which 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 should be in place which informs all students of their progress throughout the program.
3. It is recognized that individual courses will differ across 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 business.

NAIL TECHNICIAN OPTION

SUGGESTED COURSE SEQUENCE*

| | |
|-------|----------------------------------|
| 3 sch | Cosmetology Theory I (COV 1213) |
| 5 sch | Cosmetology Theory II (COV 1225) |
| 5 sch | Nail Technology (COV 1525) |
| 2 sch | Manicure and Pedicure (COV 1512) |

15 sch

*Students who lack entry level skills in math, English, science, etc. will be provided related studies.

NOTE: The ratio of lab hours to lecture hours for the Nail Technician Option is 3 to 1.

COSMETOLOGY TEACHER TRAINING OPTION

PROGRAM DESCRIPTION

This instructional program prepares individuals to teach others to care for hair, nails, and skin with emphasis on hygiene, sanitation, customer relations, and salon management. Satisfactory completion of the courses qualifies students for the Mississippi State Board of Cosmetology instructor licensing examination.

PROGRAM REQUIREMENTS

It is recommended that students complete twelve semester hours of college level education as approved by the Mississippi State Board of Cosmetology before enrolling in the Cosmetology Teacher Training Option. These hours must be completed before a student will be allowed to take the cosmetology instructor licensing examination. More information concerning these hours can be obtained from the Mississippi State Board of Cosmetology.

The curriculum is designed for students who have at least two years active practical experience as a licensed cosmetologist and currently hold a valid Mississippi cosmetology license. The curriculum complies with the standards of the Mississippi State Board of Cosmetology and the requirement for 750 contact hours for students. Students are required to receive 12 hours of theory; 68 hours of skill preparation and clinic work; 164 hours concerning the professional teacher's skills and preparation techniques; 99 hours concerning student motivation and learning skills; 332 hours of methods, management, and material procedures and techniques; 65 hours of testing and evaluation skills; and 10 hours of cosmetology laws, rules, and regulations. Successful completion of the program entitles students to a Cosmetology Teacher Training certificate and, upon meeting the requirements of the Mississippi State Board of Cosmetology, qualifies them for licensing examinations as cosmetology instructors.

The curriculum for Cosmetology Teacher Training Option is based upon data as collected from curricula guides, state board documents, input from business, and a revision team. The listing of tasks within the *Laws, Rules, and Regulations of the Mississippi State Board of Cosmetology* serves as the 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 has included 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 which 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 should be in place which informs all students of their progress throughout the program.
3. It is recognized that individual courses will differ across 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 business.

COSMETOLOGY TEACHER TRAINING OPTION

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| First Semester | | Second Semester | |
|----------------|--|-----------------|---|
| 6 sch | Cosmetology Teacher Training I (COV 2816) | 6 sch | Cosmetology Teacher Training III (COV 2836) |
| 6 sch | Cosmetology Teacher Training II (COV 2826) | 6 sch | Cosmetology Teacher Training IV (COV 2846) |
| <hr/> 12 sch | | <hr/> 12 sch | |

It is recommended that students complete twelve semester hours of college level education as approved by the Mississippi State Board of Cosmetology before enrolling in the Cosmetology Teacher Training Option. These hours must be completed before a student will be allowed to take the cosmetology instructor licensing examination. More information concerning these hours can be obtained from the Mississippi State Board of Cosmetology. This curriculum is designed for students who have at least two years active practical experience as a licensed cosmetologist and currently hold a valid Mississippi cosmetology license.

*Students who lack entry level skills in math, English, science, etc. will be provided related studies.

NOTE: The ratio of lab hours to lecture hours for the Cosmetology Teacher Training Option is 3 to 1.

ELECTRICITY/ELECTRONICS/RELATED ENGINEERING CLUSTER ELECTRICAL TECHNOLOGY

PROGRAM DESCRIPTION

The Postsecondary Electrical Technology program prepares individuals to install, operate, maintain, and repair electrically-energized systems such as residential, commercial, and industrial electric wiring, and DC and AC motors, controls, and electrical distribution panels. Instruction in the use of test equipment is included.

PROGRAM REQUIREMENTS

Electrical Technology is an articulated technical program designed to provide its students with technical skills. Entry into the programs based upon mastery of skills which are taught in secondary Electrician programs. Students who do not possess such skills must complete additional course work in order to graduate from the program. The technical program consists of essential skills which may be obtained in a secondary program or at the community/junior college and technical skills and academics which must be obtained at the community/junior college level.

The standard curriculum for Electrical Technology is based upon national standards and revision team composed of selected teachers. The National Electrical Code (1999) was used to ensure compliance with the standards. The listing of tasks served as a baseline data for the revision 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 has included use of appropriate tools, testing, and measuring instruments needed to accomplish certain tasks. It is also assumed that each student has received instruction to locate and use current reference and materials from industry publications which 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 should be in place which informs all students of their progress throughout the program.
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 electrical industry.

The curriculum for Electrical Technology is designed to serve as the core curriculum for approximately 75 percent of each course at the postsecondary level. The remaining 25 percent of each course is to be added at the local level based upon needs of students and area employers.

The technical program in Electrical Technology requires a minimum of 65 semester credit hours (sch) beyond the baseline competencies. Fifteen semester credit hours of academic core courses are included in this minimum. Certificate programs in Electrical Technology require a minimum of 32 semester hours credit.

ELECTRICITY/ELECTRONICS/RELATED ENGINEERING CLUSTER
ELECTRICAL TECHNOLOGY

SUGGESTED COURSE SEQUENCE*
CERTIFICATE

Baseline Competencies for Electrical Technology**

| First Semester | | Second Semester | |
|----------------|---|-----------------|---|
| 2 sch | Fundamentals of Electricity (ELT 1192) | 3 sch | Blueprint Reading/Planning in Residential Installation (ELT 1263) |
| 4 sch | DC Circuits (EET 1114) | 3 sch | Switching Circuits for Residential, Commercial, and Industrial Applications (ELT 1273) |
| 3 sch | AC Circuits (EET 1123) | 3 sch | Electrical Power (ELT 1213) |
| 3 sch | Residential/Light Commercial Wiring (ELT 1113) | 3 sch | Motor Control Systems (ELT 1413) |
| 3 sch | Commercial and Industrial Wiring (ELT 1123) | 3 sch | Technical Elective |
| 3 sch | Branch Circuit and Service Entrance Calculations (ELT 1253) | | |
| 18 sch | | 15 sch | |

TECHNICAL ELECTIVES:

Solid State Devices and Circuits (EET 1343)
 Programmable Logic Controllers (ELT 2613)
 Solid State Motor Control (ELT 2424)
 Motor Maintenance and Troubleshooting (ELT 1223)
 Special Project [ELT 291(1-3)]
 Estimating the Cost of a Residential Installation (ELT 1283)
 Supervised Work Experience [ELT 292(1-6)]

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Electrician 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.

**ELECTRICITY/ELECTRONICS/RELATED ENGINEERING CLUSTER
ELECTRICAL TECHNOLOGY**

**SUGGESTED COURSE SEQUENCE
ASSOCIATE DEGREE**

Baseline Competencies for Electrical Technology**

FIRST YEAR

| | |
|--|--|
| 2 sch Fundamentals of Electricity (ELT 1192) 4 sch DC Circuits (EET 1114) 3 sch AC Circuits (EET 1123) 3 sch Residential/Light Commercial Wiring (ELT 1113) 3 sch Electrical Power (ELT 1213) 3 sch Math/Science Elective <hr style="width: 20%; margin-left: 0;"/> 18 sch | 3 sch Commercial and Industrial Wiring (ELT 1123) 3 sch Motor Maintenance and Troubleshooting (ELT 1223) 3 sch Motor Control Systems (ELT 1413) 4 sch Solid State Devices and Circuits (EET 1343) 3 sch Technical Elective <hr style="width: 20%; margin-left: 0;"/> 16 sch |
|--|--|

SECOND YEAR

| | |
|---|--|
| 3 sch Programmable Logic Controllers (ELT 2613) 4 sch Solid State Motor Control (ELT 2424) 3 sch Computer Related Elective 3 sch Written Communications Elective 3 sch Humanities/Fine Arts Elective <hr style="width: 20%; margin-left: 0;"/> 16 sch | 9 sch Technical Electives 3 sch Oral Communications Elective 3 sch Social/Behavioral Science Elective <hr style="width: 20%; margin-left: 0;"/> 15 sch |
|---|--|

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Electrician 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.

TECHNICAL ELECTIVES

| | | | |
|-------|---|---------|---|
| 4 sch | Digital Electronics (EET 1214) | 3 sch | Approved Computer Programming Language [†] |
| 3 sch | Drafting for Electronic/ Electrical Technology (EET 1713) | 1-3 sch | Special Project [ELT 291(1-3)] |
| 3 sch | Fundamentals of Fiber Optics (EET 2423) | 1-6 sch | Supervised Work Experience [ELT 292(1-6)] |
| 3 sch | Computer Fundamentals for Electronics/Electricity (EET 1613) [†] | 3 sch | Switching Circuits for Residential, Commerical, and Industrial Applications (ELT 1273) |
| 4 sch | Fundamentals of Microcomputer Applications (CPT 1113) [†] | 3 sch | Estimating the Cost of a Residential Installation (ELT 1283) |
| 3 sch | Branch Circuit and Service Entrance Calculations (ELT 1253) | 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)] |
| 3 sch | Blueprint Reading/Planning in Residential Installation (ELT 1263) | 3 sch | Principles of Hydraulics and Pneumatics (IMM 1314) |
| 3 sch | Science and Technology (ATE 1113) | 3 sch | Advanced Programmable Logic Controllers (ELT 2623) |
| 3 sch | Equipment Maintenance, Troubleshooting, and Repair (IMM 2114) | 3 sch | Fundamentals of Robotics (ROT 1113) |
| | | 3 sch | Industrial Hydraulics (ROT 1213) |
| | | 3 sch | Industrial Pneumatics (ROT 1223) |

[†] May be selected as computer related elective

PROGRAM DESCRIPTION

GRAPHIC DESIGN TECHNOLOGY

The Graphic Design Technology curriculum is a two-year program of study designed to prepare the student for entry-level employment and advancement in the field of graphic design/commercial art. Students receive instruction in the design and execution of illustrations, layouts, color separations, camera ready layout, rendering, photography, logo design, and design principles necessary to produce designs for ads in magazines, books, posters, billboards, catalogs, brochures, and other forms of visual communications. Specific instruction is provided using traditional methods and through current computer technology.

Graphic Design is a two-year program of study which requires 64 semester hours. The Associate of Applied Science degree is earned upon the successful completion of the Graphic Design Technology curriculum.

GRAPHIC DESIGN TECHNOLOGY PROGRAM

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | |
|---|--|
| 3 sch Graphic Design and Production I (CAT 1113) | 3 sch Graphic Design and Production II (CAT 1123) |
| 3 sch Fundamentals of Graphic Computers (CAT 1213) | 3 sch Design II (CAT 1423) |
| 3 sch Design I (ART 1413) | 3 sch Drawing II (ART 1323) |
| 3 sch Drawing I (ART 1313) | 3 sch Math/Science Elective |
| 3 sch Written Communications Elective | 3 sch Elective** |
| | 3 sch Advertising (MMT 1323) |
| <hr/> 15 sch | <hr/> 18 sch |

SECOND YEAR

| | |
|--|--|
| 3 sch Social/Behavioral Science Elective | 3 sch Advanced Advertising Design (CAT 2323) |
| 3 sch Basic Advertising Design (CAT 2313) | 4 sch Practical Advertising Techniques (CAT 2334) |
| 3 sch Elective** | 3 sch Graphic Design Studio (CAT 2133) |
| 3 sch Rendering Techniques (CAT 2413) | 3 sch Humanities/Fine Arts Elective |
| 3 sch Oral Communications Elective | 3 sch Elective** |
| <hr/> 15 sch | <hr/> 16 sch |

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** ELECTIVES:

Supervised Work Experience in Graphic Design Technology [CAT 292(1-3)]
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)]
Special Project in Graphic Design Technology [CAT 291(1-6)]
Figure Drawing I (ART 2353)
Painting I (ART 2513)
Painting II (ART 2522)
Painting III (Watercolor) (ART 2533)
Ceramics I (ART 2613)
Ceramics II (ART 2623)
Art History I (ART 2713)
Art History II (ART 2723)
Special Studio (ART 2913)
Desktop Publishing (BOT 2133)
Keyboard Speed Building (BOT 1102)
Professional Development (BOT 1213)
Marketing I (MMT 1113)
Engineering Drawing I (GRA 1112)
Basic Photography (CAT 2223)
Typography (CAT 1143)
History of Graphic Design (CAT 1133)
Other approved related technical course or academic course

GRAPHICS AND PRINT COMMUNICATIONS

PROGRAM DESCRIPTION

This nine-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, pasteup and layout, film assembly, platemaking, 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.

GRAPHICS AND PRINT COMMUNICATIONS

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Graphics and Print Communications**

FIRST YEAR

| | |
|---|---|
| <p>2 sch Overview of Graphics and Print Communications (GPV 1212)</p> <p>4 sch Pasteup and Layout (GPV 1314)</p> <p>4 sch Graphic Design (GPV 1414)</p> <p>4 sch Process Camera and Darkroom (GPV 1514)</p> <p>2 sch Press Operations I (GPV 1712)</p> <hr style="width: 100%;"/> <p>16 sch</p> | <p>4 sch Film Assembly (GPV 1524)</p> <p>2 sch Platemaking (GPV 1612)</p> <p>3 sch Press Operations II (GPV 1723)</p> <p>4 sch Binding and Finishing Operations (GPV 1814)</p> <p>3 sch Technical Elective</p> <hr style="width: 100%;"/> <p>16 sch</p> |
|---|---|

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, etc., 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.

PROGRAM DESCRIPTION

JEWELRY DESIGN, FABRICATION, AND REPAIR

This is an instructional program that prepares individuals to design, fabricate, and repair jewelry articles such as rings, brooches, pendants, bracelets, and lockets. Included is instruction in model making, casting, engraving, polishing, stone setting, fitting rings, and soldering broken parts; reshaping and restyling old jewelry; and using special jeweler's hand tools and machines.

The Jewelry Design, Fabrication, and Repair program is designed to be taught in a practical "hands-on" laboratory environment with emphasis on individualized instruction. The program begins with a "common core" of skills which is shared with the Watch Repair program and focuses on the development of fundamental skills common to both areas. Students who complete this program are eligible to receive a vocational certificate in Jewelry Design, Fabrication, and Repair.

JEWELRY AND WATCH REPAIR CLUSTER
JEWELRY DESIGN, FABRICATION, AND REPAIR
SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | | | |
|-------|---|--------|-------------------------------|
| 4 sch | Fundamentals of Watch and Jewelry Repair (WJV 1114) | 4 sch | Jewelry Repair I (WJV 1244) |
| 4 sch | Basic Jewelry Repair (WJV 1224) | 4 sch | Jewelry Repair II (WJV 1254) |
| 4 sch | Jewelry Casting and Design (WJV 1234) | 12 sch | Jewelry Repair III (WJV 1264) |

12 sch

| | |
|-------|-----------------------------------|
| 4 sch | Stone Setting (WJV 1274) |
| 4 sch | Advanced Stone Setting (WJV 1284) |

8 sch

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

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)] are available as free electives to students meeting program requirements.

PROGRAM DESCRIPTION

WATCH REPAIR

Watch Repair is an instructional program that prepares individuals to maintain and repair mechanical as well as quartz watches by using diagnostic and other test equipment. These repairs include disassembling, removing and replacing parts, cleaning, and adjusting. Some minor repairs performed are replacing bands, crystals, and crowns, and other minor adjustments. The student will learn to use various bench and hand tools such as lathes, staking tools, loupes, truing calipers, timing machines, pallet warmers, and other grinding, drilling, and polishing tools.

The Watch Repair program is designed to be taught in a practical "hands-on" laboratory environment with an emphasis on individualized instruction. The program begins with a "common core" of skills which is shared with the Jewelry Design, Fabrication, and Repair program and focuses on the development of fundamental skills common to both areas. Students who complete this course are eligible to receive a vocational certificate in Watch Repair.

JEWELRY AND WATCH REPAIR CLUSTER

WATCH REPAIR

SUGGESTED COURSE SEQUENCE*

FIRST YEAR

| | | | |
|--------|---|--------|------------------------------------|
| 4 sch | Fundamentals of Watch and Jewelry Repair (WJV 1114) | 4 sch | Basic Quartz Analog (WJV 1144) |
| 4 sch | Mechanical Watch I (WJV 1124) | 4 sch | Watch Repair (WJV 1154) |
| 4 sch | Mechanical Watch II (WJV 1134) | 4 sch | Advanced Watch Repair I (WJV 1164) |
| <hr/> | | <hr/> | |
| 12 sch | | 12 sch | |

| | |
|-------|--------------------------------------|
| 4 sch | Advanced Watch Repair II (WJV 1174) |
| 4 sch | Advanced Watch Repair III (WJV 1184) |
| <hr/> | |
| 8 sch | |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

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)] are available as free electives to students meeting program requirements.

PROGRAM DESCRIPTION

PLUMBER AND PIPEFITTER/STEAMFITTER CLUSTER

The Plumber and Pipefitter/Steamfitter program includes a basic core of courses designed to prepare a student for a variety of entry-level positions through selection of a concentration in one of the following areas: plumbing or pipefitting. This document was developed with the use of the national standards as prepared by The Construction Education Foundation Inc. (CEF), 1993, and the National Center for Construction Education and Research (NCCER), 1995, along with applicable national, state, and local codes.

Upon successful completion of a minimum of 32 semester hours of required courses, the student will be eligible to receive a certificate in either plumbing or pipefitting.

PLUMBER AND PIPEFITTER/STEAMFITTER CLUSTER

PIPEFITTING CONCENTRATION

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Plumber and Pipefitter/Steamfitter**

CERTIFICATE

FIRST YEAR

| | | | |
|--------|---|-------|--|
| 3 sch | Fundamentals of Plumbing/Pipefitting (PPV 1113) | 2 sch | Pipe Specifications and Systems (PPV 1432) |
| 3 sch | Tacking, Brazing, and Burning (PPV 1213) | 2 sch | Rigging and Signaling (PPV 1812) |
| 3 sch | Blueprint Reading for Piping Trades (PPV 1313) | 6 sch | Vocational-Technical Electives*** |
| 3 sch | Sketching (PPV 1323) | 6 sch | Advanced Pipefitting Lab (PPV 1456) |
| 1 sch | Low Pressure Boilers (PPV 1411) | | |
| 3 sch | Basic Pipe Fabrication (PPV 1423) | <hr/> | 16 sch |
| | | | |
| <hr/> | | | |
| 16 sch | | | |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Building 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.

*** VOCATIONAL-TECHNICAL ELECTIVES

| | |
|---------|---|
| 3 sch | Steel Ship Building and Marine Construction (PPV 1823) |
| 1-3 sch | Special Project in Pipefitting [PPV 291(1-3)] |
| 1-6 sch | Supervised Work Experience in Pipefitting [PPV 292(1-6)] |
| 2 sch | Domestic Systems (PPV 1712) |
| 3 sch | Drainage and Sewer Systems (PPV 1513) |
| 2 sch | Plumbing Fixtures Lab (PPV 1722) |
| 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)] |

PLUMBER AND PIPEFITTER/STEAMFITTER CLUSTER

PLUMBING CONCENTRATION

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Plumber and Pipefitter/Steamfitter**

CERTIFICATE

FIRST YEAR

| | | | |
|--------|---|--------|--|
| 3 sch | Fundamentals of Plumbing/Pipefitting (PPV 1113) | 2 sch | Low Pressure Boilers (PPV 1411) |
| 3 sch | Drainage and Sewer Systems (PPV 1513) | 5 sch | Vocational-Technical Electives*** |
| 2 sch | Plumbing Fixtures Lab (PPV 1722) | 3 sch | Blueprint Reading for Piping Trades (PPV 1313) |
| 2 sch | Back Flow Cross Connection (PPV 1732) | 3 sch | Piping Level/Transit (PPV 1443) |
| 2 sch | Gas Piping (PPV 1622) | 3 sch | Advanced Plumbing Lab (PPV 1743) |
| 2 sch | Heating Devices (PPV 1612) | | |
| 2 sch | Domestic Systems (PPV 1712) | 16 sch | |
| <hr/> | | | |
| 16 sch | | | |

* Students who lack entry level skills in math, English, science, etc., will be provided related studies.

** Baseline competencies are taken from the high school Building 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.

*** VOCATIONAL-TECHNICAL ELECTIVES:

| | |
|---------|--|
| 3 sch | Sketching (PPV 1323) |
| 3 sch | Tacking, Brazing, and Burning (PPV 1213) |
| 2 sch | Rigging and Signaling (PPV 1812) |
| 1-3 sch | Special Project in Plumbing [PPV 191(1-3)] |
| 1-6 sch | Supervised Work Experience in Plumbing [PPV 192(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), and WBL 293(1-3)] |

LISTING OF COURSES

AGRICULTURAL AND RELATED TECHNOLOGY
Agribusiness Management Technology
Animal Husbandry Technology
Field Crops Technology
Catfish Production Technology

AGRICULTURAL BUSINESS AND MANAGEMENT CLUSTER
AGRIBUSINESS MANAGEMENT TECHNOLOGY

e e e e e

Course Name: Survey of Agricultural Technology I, II, III, IV
Course Abbreviation: AGT 1111, AGT 1121, AGT 1131, AGT 1141
Classification: Vocational-Technical Core (All areas of concentration)
Description: A course to provide opportunities for students to gain knowledge, practice, and study in agricultural technology. Includes lectures and seminars on current agricultural topics including government programs and policies, current technological trends and practices, international agriculture, agricultural leadership and employment opportunities, etc. (1 sch: 1 hr. lecture; may be repeated for a maximum of 4 sch)
Prerequisites: None

e e e e e

Course Name: Applied Principles of Animal Production
Course Abbreviation: AGT 1214
Classification: Vocational-Technical Core (All areas of concentration)
Description: A course to provide students with basic principles related to the production of farm animals. Includes instruction in the basic production cycle, breeding, nutrition, and health of beef and dairy cattle, hogs, poultry, and commercial fish. (4 sch: 3 hr. lecture, 2 hr. lab) [Note: Animal Science (AGR 1214) may be substituted for this course.]
Prerequisites: None

e e e e e

Course Name: Applied Principles of Plant Production
Course Abbreviation: AGT 1313
Classification: Vocational-Technical Core (All areas of concentration)
Description: A course to provide information related to the growth, nutrition, and general culture of agricultural and horticultural crops. Includes instruction on photosynthesis and transpiration, plant nutrition, pest control, and reproduction. (3 sch: 2 hr. lecture, 2 hr. lab) [Note: Plant Science (AGR 1313) or Botany (BIO 1313) may be substituted for this course.]
Prerequisites: None

e e e e e

Course Name: Principles of Agricultural Management
Course Abbreviation: AGT 1413
Classification: Vocational-Technical Core (All areas of concentration)
Description: A course which provides instruction in organization and structure of agricultural businesses, decision-making, and the planning process for farming operations. (3 sch: 2 hr. lecture, 2 hr. lab) (Option Project Based 3 sch: 1 hr. lecture, 4 hr. lab) [Note: Principles of Accounting (ACC 1213) may be substituted.]
Prerequisites: None

e e e e e

Course Name: Principles of Agricultural Marketing**Course Abbreviation:** AGT 1513**Classification:** Vocational-Technical Core (All areas of concentration)**Description:** An introduction to general principles of marketing agricultural products. Includes instruction in general marketing practices and the use of futures contracts. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Agricultural Records**Course Abbreviation:** AGT 1613**Classification:** Vocational-Technical Elective (All areas of concentration)**Description:** An introduction to agricultural record keeping techniques including single entry accounting methods, field and enterprise records, credit purchases, and sinking funds. (3 sch: 2 hr. lecture, 2 hr. lab) (Option Project Based 3 sch: 1 hr. lecture, 4 hr. lab) [Note: Principles of Accounting (ACC 1213) may be substituted.]**Prerequisites:** None

e e e e e

Course Name: Applied Soils-Conservation and Use**Course Abbreviation:** AGT 1714**Classification:** Vocational-Technical Core (All areas of concentration)**Description:** A course to introduce the student to the general principles of soil conservation and safe use. Includes instruction in the soil formation process, properties of soils, soil texture, and soil management for optimum safe use. (4 sch: 3 hr. lecture, 2 hr. lab) [Note: Basic Soils (AGR 2314) may be substituted for this course.]**Prerequisites:** None

e e e e e

Course Name: Agricultural Sales**Course Abbreviation:** AGT 2213**Classification:** Vocational-Technical Elective (All areas of concentration)**Description:** A course in the advertising, sales, and promotion of agricultural supplies and services. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Human Relations in Agribusiness**Course Abbreviation:** AGT 2313**Classification:** Vocational-Technical Elective (All areas of concentration)**Description:** A course to study human relations as related to agricultural occupations. Includes instruction on topics such as morale, burnout, stress, work habits, and communications. (3 sch: 2 hr. lecture, 2 hr. lab) [Note: Professional Development (BOT 1213) may be substituted for this course.]**Prerequisites:** None

e e e e e

Course Name: Special Problem in Agricultural Business and Management

Course Abbreviation: AGT 291(1-3)

Classification: Vocational-Technical Elective (All areas of concentration)

Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Agricultural Business and Management 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: Sophomore standing in Agricultural Business and Management Technology or instructor approval

e e e e e

Course Name: Applied Agricultural Economics

Course Abbreviation: AGT 2263

Classification: AOC Core (Agribusiness Management and Field Crops), Vocational-Technical Elective (Animal Husbandry)

Description: A course to introduce the student to economic principles as applied to agribusiness operations. (3 sch: 2 hr. lecture, 2 hr. lab) [Note: Principles of Agricultural Economics (AGR 2713) or Principles of Economics (ECO 2113) may be substituted for this course.]

Prerequisites: None

e e e e e

Course Name: Supervised Agricultural Experience

Course Abbreviation: AGT 292(1-6)

Classification: AOC Core (Agribusiness Management and Field Crops), Vocational-Technical Elective (Animal Husbandry)

Description: This internship course provides actual work experience in an agriculture business under the direction of the employer and the instructor. (1-6 sch: 3-18 hr. externship)

Prerequisites: Sophomore standing in Agricultural Business and Management Technology or instructor approval

e e e e e

AGRICULTURAL BUSINESS AND MANAGEMENT CLUSTER
ANIMAL HUSBANDRY TECHNOLOGY

e e e e e

Course Name: Fitting/Grooming/Judging

Course Abbreviation: AGT 1813

Classification: Vocational-Technical Elective (Agribusiness Management and Animal Husbandry)

Description: Provides information and practice on fitting, grooming, and judging livestock products. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Animal Reproduction

Course Abbreviation: AGT 1913

Classification: AOC Core (Animal Husbandry)

Description: Provides information and laboratory opportunities to assist students in learning about animal reproduction. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

Course Name: Fish Management

Course Abbreviation: AGT 2513

Classification: Vocational-Technical Elective (All areas of concentration)

Description: Practical principles and application techniques in the production, harvesting, and marketing of fish. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

Course Name: Forage and Pasture Crops

Course Abbreviation: AGT 2613

Classification: Vocational-Technical Elective (Agribusiness Management and Animal Husbandry)

Description: A comprehensive course in the production and management of forage and pasture crops. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313)

e e e e e

Course Name: Applied Animal Nutrition

Course Abbreviation: AGT 2663

Classification: AOC Core (Animal Husbandry), Vocational-Technical Elective (Agribusiness Management)

Description: A comprehensive course of study on the practical principles and applications of nutrition. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

Course Name: Beef Production I

Course Abbreviation: AGT 2713

Classification: AOC Core (Animal Husbandry), Vocational-Technical Elective (Agribusiness Management and Field Crops)

Description: A course to provide knowledge and practice in the area of beef production. Includes instruction in animal breeding and nutrition and livestock handling practices. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

Course Name: Beef Production II

Course Abbreviation: AGT 2723

Classification: AOC Core (Animal Husbandry), Vocational-Technical Elective (Agribusiness Management and Field Crops)

Description: A continuation of Beef Production I with emphasis on management, herd health, and marketing. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Beef Production I (AGT 2713)

e e e e e

Course Name: Swine Production

Course Abbreviation: AGT 2813

Classification: Vocational-Technical Elective (Animal Husbandry and Agribusiness Management)

Description: A comprehensive course in the production and management of swine. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

Course Name: Horse Production

Course Abbreviation: AGT 2863

Classification: AOC Core (Animal Husbandry), Vocational-Technical Elective (Agribusiness Management)

Description: A comprehensive course in the production and management of horses. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Animal Production (AGT 1214)

e e e e e

AGRICULTURAL BUSINESS AND MANAGEMENT CLUSTER
FIELD CROPS TECHNOLOGY

e e e e e

Course Name: Agricultural Structures

Course Abbreviation: AGT 2113

Classification: Vocational-Technical Elective (Agribusiness Management and Field Crops)

Description: This course is a study of new technology for designing and maintaining facilities for use in agribusiness/agriculture applications. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Crop Production (General)

Course Abbreviation: AGT 2363

Classification: Vocational-Technical Elective (All areas of concentration)

Description: This course is a study of crop production techniques including tillage and planting, pest control, and physical marketing practices for crops in Mississippi. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313) or Botany (BIO 1314)

e e e e e

Course Name: Fiber and Oilseed Crops

Course Abbreviation: AGT 2373

Classification: AOC Core (Field Crops)

Description: This course is a study of crop production techniques including tillage and planting, pest control, and physical marketing practices for cotton and rice. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313) or Botany (BIO 1314)

e e e e e

Course Name: Grain Crops

Course Abbreviation: Grain Crops (AGT 2383)

Classification: AOC Core (Field Crops), AOC Elective (Agribusiness Management, Animal Husbandry)

Description: This course is a study of grain production techniques including tillage, planting, pest control, and physical marketing practices for grain crops in Mississippi. (Crops included are corn or maize, rice wheat, and milo). (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313) or Botany (BIO 1314)

e e e e e

Course Name: Weed Control

Course Abbreviation: AGT 2413

Classification: AOC Core (Field Crops)

Description: A course to provide students with information and skills for controlling plant pests in agricultural crops. Includes instruction in the use and application of chemicals for weed control. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313)

e e e e e

Course Name: Insects and Controls

Course Abbreviation: AGT 2463

Classification: AOC Core (Field Crops)

Description: A course to provide instruction and training in techniques of control of insect pests. Includes instruction in the safe and proper use of chemical and other control methods. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Applied Principles of Plant Production (AGT 1313) or Botany (BIO 1314)

e e e e e

Course Name: Agricultural Machinery and Shop Management

Course Abbreviation: AGT 2563

Classification: AOC Core (Animal Husbandry, Field Crops), Vocational-Technical Elective (Agribusiness Management)

Description: A comprehensive course studying operation and management of farm power machinery and shop repairs and maintenance. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

CATFISH PRODUCTION TECHNOLOGY

e e e e e

Course Name: Catfish Health Management I**Course Abbreviation:** CFT 1113**Classification:** Vocational-Technical Core**Description:** Identifying the parts and functions of catfish fish organ systems. Identifying and controlling catfish diseases and parasite infestation. Included are general guidelines for preventing, diagnosing, and treating diseases and parasite infestation. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Catfish Health Management II**Course Abbreviation:** CFT 1123**Classification:** Vocational-Technical Core**Description:** A continuation of Catfish Health Management I in identifying and controlling catfish disease and parasite infestation. Emphasis on preventing, diagnosing, and treating diseases and parasite infestation. (3 sch: 1 hr. lecture, 4 hr. lab)**Prerequisites:** Catfish Health Management I (CFT 1113)

e e e e e

Course Name: Catfish Production Management I**Course Abbreviation:** CFT 1213**Classification:** Vocational-Technical Core**Description:** Catfish production management including stocking, feeding, monitoring, overwintering fish, and pond management. Included are levee maintenance, weed control, predator/pest control, and off-flavor problems. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Catfish Production Management II**Course Abbreviation:** CFT 1223**Classification:** Vocational-Technical Core**Description:** A continuation of Catfish Production Management I including practical application of techniques utilized in catfish production management including stocking, feeding, monitoring, overwintering fish, and pond management. Pond management topics include levee maintenance, weed control, predator/pest control, and off-flavor problems. Emphasis is placed on seasonal management techniques. General guidelines for harvesting, seining, handling, and hauling catfish. (3 sch: 1 hr. lecture, 4 hr. lab)**Prerequisites:** Catfish Production Management I (CFT 1213)

e e e e e

Course Name: Water Quality Management

Course Abbreviation: CFT 1313

Classification: Vocational-Technical Core

Description: Analysis of the important water quality parameters, their significance, manipulation, and effect on catfish production. Students will perform an ongoing laboratory exercise applying skills previously learned. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Aquacultural Equipment Operation and Maintenance I

Course Abbreviation: CFT 1413

Classification: Vocational-Technical Core

Description: Procedures for safely operating aquacultural equipment. Included are procedures for performing routine maintenance, service, and repair on aquacultural equipment. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Aquacultural Equipment Operation and Maintenance II

Course Abbreviation: CFT 1423

Classification: Vocational-Technical Core

Description: A continuation of Aquacultural Equipment Operation and Maintenance I. Included are safe operation, maintenance, and repair of small gasoline engines and outboard engines. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: Aquacultural Equipment Operation and Maintenance I (CFT 1413)

e e e e e

Course Name: Spawning and Hatchery Techniques

Course Abbreviation: CFT 1613

Classification: Vocational-Technical Core

Description: Techniques of catfish breeding, spawning, and hatchery operation. Practical exercises are provided in the procedures of growing, handling, and harvesting of fingerlings. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Special Problem in Catfish Production Technology

Course Abbreviation: CFT 291(1-3)

Classification: Vocational-Technical Elective

Description: A course to provide students with an opportunity to utilize skills and knowledge gained in other Catfish Production 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: Sophomore standing in Catfish Production Technology

e e e e e

Course Name: Supervised Work Experience in Catfish Production Technology

Course Abbreviation: CFT 292(1-6)

Classification: Vocational-Technical Elective

Description: A course which 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: 3-18 hr. externship)

Prerequisites: None

e e e e e

BUSINESS AND COMPUTER TECHNOLOGY
Office Systems Technology
Paralegal Technology

OFFICE SYSTEMS TECHNOLOGY

e e e e e

Course Name: Keyboard Concepts

Course Abbreviation: BOT 1113

Classification: Vocational-Technical Core

Course Description: Emphasis is placed on improving keyboard techniques using the touch method. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: None

e e e e e

Course Name: Keyboard Skillbuilding

Course Abbreviation: BOT 1123

Classification: Vocational-Technical Core

Description: This course further develops keyboard techniques emphasizing speed and accuracy. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Keyboard Concepts (BOT 1113)

e e e e e

Course Name: Word Processing

Course Abbreviation: BOT 1133

Classification: Vocational-Technical Core

Description: This course focuses on production of documents using word processing functions. Production with accuracy is stressed and practice is given through a variety of documents for skillbuilding. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Keyboarding Concepts (BOT 1113), Mechanics of Communication (BOT 1713), and Operating Systems (BOT 1813) or by consent of instructor.

e e e e e

Course Name: Professional Development

Course Abbreviation: BOT 1213

Classification: Vocational-Technical Core

Description: This course develops an awareness of interpersonal skills essential for job success. (3 sch: 3 hr. lecture)

Prerequisite: None

e e e e e

Course Name: Applied Business Math

Course Abbreviation: BOT 1313

Classification: Vocational-Technical Core

Description: This course is designed to develop competency in mathematics for business use. Ten-key touch method on the electronic desktop calculators is stressed. (3 sch: 3 hr. lecture)

Prerequisite: None

e e e e e

Course Name: Electronic Spreadsheet**Course Abbreviation:** BOT 1323**Classification:** Vocational-Technical Core**Description:** This course focuses on applications of the electronic spreadsheet as an aid to management decision making. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** Applied Business Math (BOT 1313) and Operating Systems (BOT 1813) or by consent of instructor

e e e e e

Course Name: Business Accounting**Course Abbreviation:** BOT 1333**Classification:** Vocational-Technical Core**Description:** This course is designed to develop an understanding of recording, classifying, and summarizing business transactions and events with insight into interpreting and reporting the resulting effects upon the business. (3 sch: 3 hr. lecture)**Prerequisite:** None

e e e e e

Course Name: Records Management**Course Abbreviation:** BOT 1413**Classification:** Vocational-Technical Core**Description:** This course focuses on the systems approach to managing recorded information in any form. Emphasis is placed on the three categories into which records generally fall -- paper, image, and digital -- and the treatment of these categories in proper management, storage, and retrieval. (3 sch: 3 hr. lecture)**Prerequisite:** None

e e e e e

Course Name: Mechanics of Communication**Course Abbreviation:** BOT 1713**Classification:** Vocational-Technical Core**Description:** This course is designed to develop the basic English competencies necessary for success in the business world. A study of the parts of speech, sentence structure, sentence types, capitalization, punctuation, and spelling is emphasized. (3 sch: 3 hr. lecture)**Prerequisite:** None

e e e e e

Course Name: Business Communication**Course Abbreviation:** BOT 1723**Classification:** Vocational-Technical Core**Description:** This course develops communication skills with emphasis on principles of writing business correspondence and reports, and analyzing and summarizing information in a logically written presentation. (3 sch: 3 hr. lecture)**Prerequisite:** Mechanics of Communication (BOT 1713) and Keyboard Concepts (BOT 1113) or by consent of instructor

e e e e e

Course Name: Operating Systems

Course Abbreviation: BOT 1813

Classification: Vocational-Technical Core

Description: This course will provide training in using operating systems and a multi-tasking environment. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: None

e e e e e

Course Name: Desktop Publishing

Course Abbreviation: BOT 2133

Classification: Vocational-Technical Core

Description: This course presents graphic design techniques, principles of page layout and design, and electronic publishing terminology and applications to create a variety of documents such as flyers, brochures, newsletters, and business cards. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Word Processing (BOT 1133)

e e e e e

Course Name: Administrative Office Procedures

Course Abbreviation: BOT 2223

Classification: Vocational-Technical Core

Description: This course will provide comprehensive coverage and integration of business skills and issues, develop critical-thinking and problem-solving skills, and establish a foundation in business procedures. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Word Processing (BOT 1133)

e e e e e

Course Name: Computerized Accounting

Course Abbreviation: BOT 2343

Classification: Vocational-Technical Core

Description: This course applies basic accounting principles using a computerized accounting system. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Business Accounting (BOT 1333) or Principles of Accounting I (ACC 1213)

e e e e e

Course Name: Database Management

Course Abbreviation: BOT 2453

Classification: Vocational-Technical Core

Description: This course applies database concepts for designing and manipulating data files and formatting output as complex documents and reports. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Operating Systems (BOT 1813) and Records Management (BOT 1413)

e e e e e

Course Name: Machine Transcription

Course Abbreviation: BOT 2513

Classification: Vocational-Technical Core

Description: This course is designed to teach transcription of a wide variety of business communications from machine dictation. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Word Processing (BOT 1133)

e e e e e

Course Name: Communication Technology

Course Abbreviation: BOT 2823

Classification: Vocational-Technical Core

Description: This course will present an overview of the resources available for online communications. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Word Processing (BOT 1133)

e e e e e

Course Name: Integrated Computer Applications

Course Abbreviation: BOT 2833

Classification: Vocational-Technical Core

Description: This course integrates activities using applications software including word processing, database, spreadsheet, graphics, and multimedia. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisite: Word Processing (BOT 1133) and Business Communication (BOT 1723)

e e e e e

PARALEGAL TECHNOLOGY

e e e e e

Course Name: Legal Systems and Terminology

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)

Prerequisites: Local college requirements

e e e e e

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: Legal Systems and Terminology (LET 1113)

e e e e e

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)

Prerequisites: Local college requirements

e e e e e

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

e e e e e

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: Legal Systems and Terminology (LET 1113)) and Legal Research (LET 1213)

e e e e e

Course Name: Civil Litigation I**Course Abbreviation:** LET 2313**Classification:** Vocational-Technical Core**Description:** This course is designed to study 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: 2 hr. lecture, 2 hr. lab)**Prerequisites:** Legal Systems and Terminology (LET 1113) and Legal Research (LET 1213)

e e e e e

Course Name: Torts**Course Abbreviation:** LET 2323**Classification:** Vocational-Technical Core**Description:** This course provides instruction in the area of law which deals with civil wrongs and injuries as distinguished from breach of contract. It concentrates on the elements of a tort, type of tort, damages, ethics, and remedies. (3 sch: 3 hr. lecture)**Prerequisites:** Legal Systems and Terminology (LET 1113)

e e e e e

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. (3 sch: 3 hr. lecture)**Prerequisites:** Civil Litigation I (LET 2313)

e e e e e

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 and transfer, employing ethics. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

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: 2 hr. lecture, 2 hr. lab)**Prerequisites:** Real Property I (LET 2453)

e e e e e

Course Name: Bankruptcy Law

Course Abbreviation: LET 2523

Classification: Vocational-Technical Core

Description: This course is introduction to federal bankruptcy law. Emphasis is placed on federal bankruptcy statutes, chapters and forms. (3 sch: 3 hr. lecture)

Prerequisite: Legal Systems and Terminology (LET 1113)

e e e e e

Course Name: Paralegal Skills and Applications

Course Abbreviation: LET 2633

Classification: Vocational-Technical Core

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 analyzation, and an overview of law office management. (3 sch: 3 hr. lecture)

Prerequisites: Legal Systems and Terminology (LET 1113)

e e e e e

Course Name: Internship for Paralegal

Course Abbreviation: LET 2923

Classification: Vocational-Technical Core

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

e e e e e

FAMILY AND CONSUMER SCIENCES
Clothing and Textiles Services

CLOTHING AND TEXTILES SERVICES

e e e e e

Course Name: Garment Construction

Course Abbreviation: CTV 1114

Classification: Vocational-Technical Core

Description: An application of principles and techniques with emphasis on working with problem fabrics (plaids, stripes, velvets, and other pile problem fabrics and design) and on fitting and construction of garments for men, women, and children, and for different figure types. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Alterations

Course Abbreviation: CTV 1123

Classification: Vocational-Technical Core

Description: Recognition of problems in garment fitting in relation to grain line, figure, and fashion; and techniques to fitting and solving fitting problems through alterations by hand and on the machine. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Garment Construction (CTV 1114)

e e e e e

Course Name: Tailoring

Course Abbreviation: CTV 1134

Classification: Vocational-Technical Core

Description: Application of tailoring techniques in the construction of garments using various fabrics. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Garment Construction (CTV 1114)

e e e e e

Course Name: Fashion Design

Course Abbreviation: CTV 1143

Classification: Vocational-Technical Core

Description: This course focuses on creating original dress design starting with the most basic and progressing towards the most complex. Emphasis is placed on the recognition of the history of fashion, basic silhouettes, lines, styles, and detail in garment construction. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: Garment Construction (CTV 1114) and Alterations (CTV 1123)

e e e e e

Course Name: Equipment Use and Care

Course Abbreviation: CTV 1213

Classification: Vocational-Technical Core

Description: Use and care of equipment in production, instructions in the use and care of all equipment basic to garment construction, safety practices, and proper storage. Emphasis is on the use of industrial sewing and computerized equipment. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Textiles

Course Abbreviation: CTV 1223

Classification: Vocational-Technical Core

Description: Relationship of raw materials, construction, and finish to quality and cost of textiles. Also considered are the identification of fibers, yarns, and fabrics; selection of appropriate fabrics for various uses; and wearing quality and care required for textiles. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Fabric and Accessory Design

Course Abbreviation: CTV 1233

Classification: Vocational-Technical Core

Description: A study of fabric decoration, textile, and accessory design. This course is an introduction to block printing and the techniques of batik, tie-dye, and stenciling. Emphasis is placed on garment finishes and accessory design. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Modeling and Grooming

Course Abbreviation: CTV 1313

Classification: Vocational-Technical Core

Description: Basic concepts of modeling through exercise, grooming, poise, walking, makeup, and photography. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Home Furnishings

Course Abbreviation: CTV 1413

Classification: Vocational-Technical Core

Description: Principles and elements of design related to the selection and arrangement of furniture, use of fabrics, accessories, wall and window treatments, and other facets of interior designs. Drapery making and construction of home furnishing goods are also included. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Garment Construction (CTV 1114)

e e e e e

Course Name: Special Problem in Clothing and Textiles Services

Course Abbreviation: CTV 291(1-3)

Classification: Vocational-Technical Elective

Description: A course designed to provide the student with practical application of skills and knowledge gained in other vocational-technical courses. The instructor works closely with the student to insure that the selection of a project will enhance the student's learning experience. (1-3 sch: 2-6 hr. lab)

Prerequisites: Consent of instructor

e e e e e

Course Name: Supervised Work Experience in Clothing and Textiles Services

Course Abbreviation: CTV 292(1-6)

Classification: Vocational-Technical Elective

Description: A course which 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 variable: 3-18 hr. externship)

Prerequisites: Garment Construction (CTV 1114), Tailoring (CTV 1134), Alterations (CTV 1123), Equipment Use and Care (CTV 1213), Textiles (CTV 1223), and Home Furnishings (CTV 1413)

e e e e e

HEALTH SCIENCE TECHNOLOGY
Dental Hygiene Technology
Emergency Medical Technology - Basic
Emergency Medical Technology - Paramedic
Ophthalmic Technology
Pharmacist Technician
Physical Therapist Assistant

DENTAL HYGIENE TECHNOLOGY

e e e e e

Course Name: Fundamentals of Dental Hygiene**Course Abbreviation:** DHT 1115**Classification:** Vocational-Technical Core**Description:** This course will provide the dental hygiene student with fundamental knowledge and skills necessary to begin actual clinical treatment of clients. The lecture portion will focus on the history, philosophy, and theories relevant to the dental hygiene profession. The preclinical portion will focus on the development of the psychomotor skills necessary for the delivery of dental hygiene services. (5 sch: 2 hr. lecture, 6 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Dental Anatomy**Course Abbreviation:** DHT 1212**Classification:** Vocational-Technical Core**Description:** A study of the morphological characteristics of the teeth and supporting structures. (2 sch: 2 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Head and Neck Anatomy**Course Abbreviation:** DHT 1222**Classification:** Vocational-Technical Core**Description:** A detailed study of skeletal, muscular, vascular, and neural features of the face, head, and neck. (2 sch: 2 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Oral Histology and Embryology**Course Abbreviation:** DHT 1232**Classification:** Vocational-Technical Core**Description:** The microscopic structure and development of types of cells, tissues, and organs of the human body. Also given is a survey of the elements of embryology emphasizing the area of the head and neck, as related to the development of the dental arches, salivary glands, buccal mucosa, pharynx, and tongue. (2 sch: 2 hr. lecture)**Pre/Corequisites:** Dental Anatomy (DHT 1212) and Head and Neck Anatomy (DHT 1222)

e e e e e

Course Name: Dental Radiology**Course Abbreviation:** DHT 1314**Classification:** Vocational-Technical Core**Description:** This course involves a broad scope of study of radiology and its use by the dentist as a diagnostic aid. Also covered are techniques for making radiographs with safety for hygienist and patient, the processing and mounting of exposed film and their interpretation, and the study of anatomical landmarks evident in periapical films. (4 sch: 3 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Clinical Dental Hygiene I**Course Abbreviation:** DHT 1415**Classification:** Vocational-Technical Core**Description:** The student will apply the principles and techniques learned from previous didactic and preclinical experiences. (5 sch: 1 hr. lecture, 12 hr. clinical)**Prerequisites:** Fundamentals of Dental Hygiene (DHT 1115)

e e e e e

Course Name: Periodontics**Course Abbreviation:** DHT 1512**Classification:** Vocational-Technical Core**Description:** An in-depth study of the supporting structures of the teeth is covered in this course. Also included is a clinical and theoretical understanding of their conditions in good health as well as their reaction to bacterial invasion in disease of varying etiology. The theory of clinical application to the management of the advanced periodontal patient to maintain a healthy and functional dental prosthesis is also studied. (2 sch: 2 hr. lecture)**Pre/Corequisites:** Oral Histology and Embryology (DHT 1232) and Dental Anatomy (DHT 1212)

e e e e e

Course Name: Dental Hygiene Seminar I**Course Abbreviation:** DHT 1911**Classification:** Vocational-Technical Core**Description:** This course provides the student with the opportunity to discuss managing dental office emergencies and professional development. (1 sch: 1 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Dental Hygiene Seminar II**Course Abbreviation:** DHT 1921**Classification:** Vocational-Technical Core**Description:** This course provides the student with the opportunity to discuss patient care and treatment plans and professional development. (1 sch: 1 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: General/Oral Pathology

Course Abbreviation: DHT 2233

Classification: Vocational-Technical Core

Description: A study of the etiology and symptomatology of the pathological conditions affecting the head and neck with emphasis on the oral cavity. (3 sch: 3 hr. lecture)

Prerequisites: Dental Anatomy (DHT 1212), Head and Neck Anatomy (DHT 1222), Oral Histology and Embryology (DHT 1232)

e e e e e

Course Name: Clinical Dental Hygiene II

Course Abbreviation: DHT 2425

Classification: Vocational-Technical Core

Description: Continuation of the principles and techniques involved in the practice of dental hygiene. Emphasis will be on theoretical background needed to provide advanced clinical skills. Clinical experiences will focus on treatment of clients with moderate to advanced periodontal disease. (5 sch: 1 hr. lecture, 12 hr. clinical)

Pre/Corequisites: Periodontics (DHT 1512) and Clinical Dental Hygiene I (DHT 1415)

e e e e e

Course Name: Clinical Dental Hygiene III

Course Abbreviation: DHT 2436

Classification: Vocational-Technical Core

Description: A culmination of practice, and the clinical procedures and theoretical knowledge needed to provide preventive, interceptive, and definitive dental hygiene treatment. (6 sch: 2 hr. lecture, 12 hr. clinical)

Pre/Corequisites: Clinical Dental Hygiene II (DHT 2425)

e e e e e

Course Name: Dental Hygiene Materials

Course Abbreviation: DHT 2613

Classification: Vocational-Technical Core

Description: Study of materials used in dentistry, their physical and chemical properties, and proper manipulation as used in the operatory and laboratory. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Dental Pharmacology

Course Abbreviation: DHT 2712

Classification: Vocational-Technical Core

Description: This course gives a basic introduction to drug actions, their mechanisms, and the reactions of the body to these drugs. Special emphasis is given to the drugs used in the modern dental office including emergency procedures. (2 sch: 2 hr. lecture)

Prerequisites: None

e e e e e

Course Name: Community Dental Health

Course Abbreviation: DHT 2813

Classification: Vocational-Technical Core

Description: This course provides an introduction to preventive dentistry as administered on federal, state, and local levels through official and voluntary health agencies. Supervised field experience gives an opportunity to observe and participate in some phases of community and school dental health programs. (3 sch: 2 hr. lecture, 3 hr. clinical)

Corequisites: Clinical Dental Hygiene III (DHT 2436)

e e e e e

Course Name: Dental Ethics/Law

Course Abbreviation: DHT 2922

Classification: Vocational-Technical Core

Description: Focus on the ethical and legal aspects of providing dental health care. (2 sch: 2 hr. lecture)

Prerequisites: None

e e e e e

Course Name: Dental Hygiene Seminar III

Course Abbreviation: DHT 2931

Classification: Vocational-Technical Core

Description: This course provides the student with the opportunity to discuss dental disciplines and professional development . (1 sch: 1 hr. lecture)

Prerequisites: None

e e e e e

Course Name: Dental Hygiene Seminar IV

Course Abbreviation: DHT 2941

Classification: Vocational-Technical Core

Description: This course provides the student the opportunity to discuss the written registry exam, the clinical simulation exam formate and professional development. (1 sch: 1 hr. lecture)

Prerequisites: None

e e e e e

EMERGENCY MEDICAL TECHNOLOGY - PARAMEDIC

e e e e e

Course Name: Preparatory

Course Abbreviation: EMT 1123

Classification: Vocational-Technical Core

Description: This course introduces the student to the EMS systems, roles and responsibilities of the paramedic, well-being of the paramedic, illness and injury prevention, medical/legal issues, ethical issues, therapeutic communications, and life span development. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: EMT Basic (EMT 1114), Anatomy & Physiology I & II

e e e e e

Course Name: Pathophysiology

Course Abbreviation: EMT 1213

Classification: Vocational-Technical Core

Description: This course provides information on abnormal functions of illness and disease processes in the human body. (3 sch: 2 hr. lecture, 2 hr. lab)

Pre/Corequisites: Preparatory (EMT 1123)

e e e e e

Course Name: Airway Management and Ventilation

Course Abbreviation: EMT 1313

Classification: Vocational-Technical Core

Description: This course will provide the student with the essential knowledge to attain a patent airway and managing the respiratory system using advanced techniques. (3 sch: 1 hr. lecture, 4 hr. lab)

Pre/Corequisites: Preparatory (EMT 1123) and Pathophysiology (EMT 1213)

e e e e e

Course Name: Patient Assessment

Course Abbreviation: EMT 1414

Classification: Vocational-Technical Core

Description: This course will teach comprehensive history taking and physical exam techniques. (4 sch: 2 hr. lecture, 4 hr. lab)

Pre/Corequisites: Preparatory (EMT 1123), Pathophysiology (EMT 1213), and Airway Management and Ventilation (EMT 1313)

e e e e e

Course Name: Special Considerations

Course Abbreviation: EMT 1423

Classification: Vocational-Technical Core

Description: This course will provide a comprehensive overview of providing care for the patient with special needs. (3 sch: 2 hr. lecture, 2 hr. lab)

Pre/Corequisites: All 1st Semester Courses

e e e e e

Course Name: Maternal/Child Emergencies

Course Abbreviation: EMT 1435

Classification: Vocational-Technical Core

Description: This course will provide a detailed understanding of the anatomic structures, physiology, and pathophysiology encountered when providing care in maternal/child emergencies. (5 sch: 3 hr. lecture, 4 hr. lab)

Pre/Corequisites: All 1st year courses

e e e e e

Course Name: Clinical Internship I

Abbreviation: EMT 1511

Classification: Vocational-Technical Core

Description: This course will provide clinical training on the skills and knowledge obtained in the classroom and laboratory. This will be a supervised activity carried out in the clinical setting at approved sites. (1 sch: 2 hr. lab)

Pre/Corequisites: Preparatory (EMT 1123), Pathophysiology (EMT 1213), Airway Management and Ventilation (EMT 1313), and Patient Assessment (EMT 1414)

e e e e e

Course Name: Clinical Internship II

Course Abbreviation: EMT 1523

Classification: Vocational-Technical Core

Description: This course will provide clinical training on the skills and knowledge obtained in classroom. This will be a supervised activity carried out in the clinical and field setting at approved sites. (3 sch: 9 hr. clinical)

Prerequisites: All 1st semester courses

e e e e e

Course Name: Clinical Internship III

Course Abbreviation: EMT 1532

Classification: Vocational-Technical Core

Description: This course will provide clinical training on the skills and knowledge obtained in the classroom. This will be a supervised activity carried out in the clinical and field setting at approved sites. (2 sch: 6 hr. clinical)

Prerequisites: All 1st year courses

e e e e e

Course Name: Pharmacology

Abbreviation: EMT 1613

Classification: Vocational-Technical Core

Description: This course will teach comprehensive pharmacodynamics and pharmacokinetics. (3 sch: 2 hr. lecture, 2 hr. lab)

Pre/Corequisites: Preparatory (EMT 1123), Pathophysiology (EMT 1213), Airway Management and Ventilation (EMT 1313), Patient Assessment (EMT 1414), and Clinical Internship I (EMT 1511).

e e e e e

Course Name: Trauma I

Course Abbreviation: EMT 1714

Classification: Vocational-Technical Core

Description: This course will provide instruction in the integration of pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a suspected trauma patient. (4 sch: 1 hr. lecture, 6 hr. lab)

Pre/Corequisites: All 1st semester courses

e e e e e

Course Name: Acute Cardiology Course Abbreviation: EMT 1814

Classification: Vocational-Technical Core

Description: This class will teach a comprehensive approach to the care of patients with acute cardiovascular compromise. (4 sch: 2 hr. lecture, 4 hr. lab)

Pre/Corequisites: All 1st semester courses

e e e e e

Course Name: Clinical Internship IV

Course Abbreviation: EMT 2541

Classification: Vocational-Technical Core

Description: This course will provide clinical training on the skills and knowledge obtained in classroom. This will be a supervised activity carried out in the clinical and field setting at approved sites. (2 sch: 6 hr. clinical)

Prerequisites: All 1st year and summer courses

e e e e e

Course Name: Field Internship I

Course Abbreviation: EMT 2552

Classification: Vocational-Technical Core

Description: This course will provide clinical training in the skills and knowledge obtained in the classroom. These will be supervised activities carried out in the out of hospital field setting at approved sites with an approved preceptor. (2 sch: 6 hr. clinical)

Pre/Corequisites: All 1st year and summer courses

e e e e e

Course Name: Field Internship II

Course Abbreviation: EMT 2564

Classification: Vocational-Technical Core

Description: This course will provide advanced clinical training in the skills and knowledge obtained in the classroom with an emphasis on leadership skills. These will be supervised activities carried out in the out-of-hospital field setting at approved sites with an approved preceptor. (4 sch: 12 hr. clinical)

Pre/Corequisites: All 1st year, summer, and 1st semester of the 2nd year courses

e e e e e

Course Name: Trauma II

Course Abbreviation: EMT 2724

Classification: Vocational-Technical Core

Description: This course will provide advanced instruction in the integration of pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a suspected trauma patient. (6 sch: 4 hr. lecture, 6 hr. clinical)

Prerequisites: All 1st year and summer courses

e e e e e

Course Name: Advanced Cardiology

Course Abbreviation: EMT 2824

Classification: Vocational-Technical Core

Description: This class will teach a comprehensive approach to the care of patients with complex cardiovascular compromise. (4 sch: 2 hr. lecture, 4 hr. lab)

Pre/Corequisites: All 1st year and summer courses

e e e e e

Course Name: Medical Emergencies I

Course Abbreviation: EMT 2834

Classification: Vocational-Technical Core

Description: This course will provide a detailed understanding of the anatomic structures, physiology, and pathophysiology encountered when providing care in medical emergencies involving pulmonary, allergy and anaphylaxis, gastroenterology, renal urology, and hematology. (4 sch: 2 hr. lecture, 6 hr. clinical)

Prerequisites: All 1st year and summer courses

e e e e e

Course Name: Medical Emergencies II

Course Abbreviation: EMT 2845

Classification: Vocational-Technical Core

Description: This course will provide a detailed understanding of the anatomic structures, physiology and pathophysiology encountered when providing care in medical emergencies involving neurology, endocrinology, toxicology, and environmental emergencies. (5 sch: 3 hr. lecture, 4 hr. lab)

Prerequisites: All 1st year, summer, and 1st semester of the 2nd year courses

e e e e e

Course Name: EMS Team Management

Course Abbreviation: EMT 2915

Classification: Vocational-Technical Core

Description: This course teaches the skills necessary to manage complex and/or multipatient situations. (5 sch: 3 hr. lecture, 4 hr. lab)

Pre/Corequisites: All 1st year, summer, and 1st semester of the 2nd year courses

e e e e e

OPHTHALMIC TECHNOLOGY

e e e e e

Course Name: Ophthalmic Optics I**Course Abbreviation:** OPT 1113**Classification:** Vocational-Technical Core**Description:** A study of basic principles of light. Topics covered include anatomy and physiology of the eye, visual conditions of the human eye, and appropriate lens to correct these conditions. (3 sch: 3 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Ophthalmic Optics II**Course Abbreviation:** OPT 1123**Classification:** Vocational-Technical Core**Description:** A continuation of Ophthalmic Optics I. Topics include the theory of optical instruments, positive and negative cylinders, prisms, vertex distance, and frame selection. (3 sch: 3 hr. lecture)**Pre/corequisites:** Ophthalmic Optics I (OPT 1113)

e e e e e

Course Name: Optics Laboratory Techniques I**Course Abbreviation:** OPT 1214**Classification:** Vocational-Technical Core**Description:** This course will introduce the student to all basic equipment necessary to process the lens through the surface operation. Emphasis will be placed on basic safety and on how to prepare, operate, and maintain equipment. (4 sch: 8 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Optics Laboratory Techniques II**Course Abbreviation:** OPT 1224**Classification:** Vocational-Technical Core**Description:** Continuation of Optics Laboratory Techniques I. Emphasis will be placed on lens inspection, cutting and edging, heat treatment, lens insertion, inspection, and tinting. (4 sch: 8 hr. lab)**Pre/corequisites:** Ophthalmic Optics II (OPT 1123), Laboratory Management and Inventory Control II (OPT 1323), Ophthalmic Dispensing I (OPT 1413), Optics Laboratory Techniques I (OPT 1214)

e e e e e

Course Name: Laboratory Management and Inventory Control I**Course Abbreviation:** OPT 1313**Classification:** Vocational-Technical Core**Description:** This course will serve as an introduction to supplies and materials used in the ophthalmic laboratories and an introduction to mathematical optical calculations. Laboratory safety procedures will be discussed. Laboratory inventory and management skills will be demonstrated using computer software. (3 sch: 3 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Laboratory Management and Inventory Control II**Course Abbreviation:** OPT 1323

Classification: Vocational-Technical Core

Description: Continuation of Laboratory Management and Inventory Control I.

Emphasis of this course will be on small business management concepts as related to an optical business. (3 sch: 3 hr. lecture)

Prerequisites: Laboratory Management and Inventory Control I (OPT 1313)

e e e e e

Course Name: Ophthalmic Dispensing I

Course Abbreviation: OPT 1413

Classification: Vocational-Technical Core

Description: This course is a foundation course that will serve as a lecture introduction to ophthalmic dispensing and related areas. Topics include frame parts, selection, lens positioning and insertion, frame fitting, and progressive lenses. (3 sch: 3 hr. lecture)

Prerequisites: None

e e e e e

Course Name: Ophthalmic Dispensing II

Course Abbreviation: OPT 2423

Classification: Vocational-Technical Core

Description: An introduction to prescription analysis and interpretation. Various types of Rx's will be discussed, as to what types of lens and frames should be considered for the final product. Emphasis will be placed on the effect of the Rx as related to the patient's needs and wants. Tints, thickness factor, cosmetic considerations, and the overall utility of the final product will be discussed. Business communication skills will also be introduced. (3 sch: 3 hr. lecture)

Pre/corequisites: Ophthalmic Dispensing I (OPT 1413)

e e e e e

Course Name: Ophthalmic Dispensing III

Course Abbreviation: OPT 2433

Classification: Vocational-Technical Core

Description: A continuation of Ophthalmic Dispensing II. Emphasis will be placed on the more advanced and unusual prescription related to ophthalmic dispensing and on sales techniques. Topics to improve the ophthalmic dispenser's relationship with fellow opticians, optometrists, ophthalmologists, wholesalers, manufacturers, and employees will be discussed. (3 sch: 3 hr. lecture)

Pre/corequisites: Ophthalmic Dispensing II (OPT 2423)

e e e e e

Course Name: Optical Theory and Instrumentation

Course Abbreviation: OPT 2513

Classification: Vocational-Technical Core

Description: An in-depth look into the basic theoretical principles of optical theory, as related to lenses, fitting problems, and instrumentation. Such topics as reflection, refraction, magnification, and object-location will be discussed. (3 sch: 3 hr. lecture)

Prerequisite: None

e e e e e

Course Name: Dispensing Clinic II

Course Abbreviation: OPT 2623

Classification: Vocational-Technical Core

Description: Continuation of Dispensing Clinic I. Continuous evaluations will be done to study the clinic operation in terms of its efficiency and effectiveness of operations. Additional adjustments and delivery will be done. Emphasis will be placed on developed cases of special Rx's and pediatric dispensing. Advanced projects, such as multifocal lens fitting, will be completed. (3 sch: 6 hr. lab)

Pre/corequisites: Ophthalmic Dispensing III (OPT 2433) and Dispensing Clinic I (OPT 2613)

e e e e e

Course Name: Externship

Course Abbreviation: OPT 2916

Classification: Vocational-Technical Core

Description: This course will be conducted off-campus at a clinical location. The student will be under the direct supervision of the manager or clinical director. Evaluations will be completed by the instructors and off-campus clinical participants. Should be taken during final summer semester. (6 sch: 18 hr. clinical)

Pre/corequisites: Successful completion of all Ophthalmic Technology courses

e e e e e

PHARMACIST TECHNICIAN

e e e e e

Course Name: Pharmacy Technician Fundamentals**Course Abbreviation:** PHM 1112**Classification:** Vocational-Technical Core**Description:** Introduces the student to the pharmacy technician career field and provides an overview of pharmacy practice and the opportunities open to certified pharmacy technicians. (2 sch: 2 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Pharmacy Law**Course Abbreviation:** PHM 1123**Classification:** Vocational-Technical Core**Description:** Federal and state laws pertaining to the practice of pharmacy. (3 sch: 3 hr. lecture)**Prerequisites:** 1st Semester Pharmacy Technology Courses

e e e e e

Course Name: Computer Applications in Pharmacy**Course Abbreviation:** PHM 1213**Classification:** Vocational-Technical Core**Description:** A comprehensive understanding of pharmacy computer systems in addition to hands-on operation. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Pharmacy Math and Dosage Calculations**Course Abbreviation:** PHM 1314**Classification:** Vocational-Technical Core**Description:** Proper use of the metric, apothecary, and avoirdupois systems. Conversion between the systems. Application of formulas, calculations of fractional dosages, and methods of calculating dosages from all drug forms. Review of calculations dealing with ratio and proportion, percentages, ratio strength, reducing and enlarging formulas, and dilution and concentration problems. (4 sch: 3 hr. lecture, 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Pharmacy Anatomy and Physiology**Course Abbreviation:** PHM 1413**Classification:** Vocational-Technical Core**Description:** Study of body structure essential to safe and effective pharmaceutical care. (3 sch: 3 hr. lecture)**Prerequisites:** None

e e e e e

Course Name: Pharmacology I**Course Abbreviation:** PHM 1424**Classification:** Vocational-Technical Core**Description:** A study of human disease processes and rational pharmacotherapeutics relating to fluids and nutrients in the following body systems: nervous, endocrine, skeletal, muscular, gastrointestinal, reproductive, and immune. Indications, contraindications, mechanism of action, side effects, dosages, and methods of administration including how these principles can be utilized in pharmacy practice. (4 sch: 4 hr. lecture)**Prerequisites:** 1st Semester Pharmacy Technology Courses

e e e e e

Course Name: Pharmaceutical Compounding**Course Abbreviation:** PHM 1513**Classification:** Vocational-Technical Core**Description:** Concepts of design, preparation, use, and evaluation of solid, and semi-solid dosage forms. Specific topics include powders, tablets, capsules, coated dosage forms, suspensions, emulsions, magmas, gels, lotions, ointments, creams, pastes, suppositories, transdermal systems, sustained release products, and novel drug delivery systems. Exercises in computer application, prescription and physician order interpretation, and the introduction of extemporaneous compounding are performed in the laboratory. (3 sch: 1 hr. lecture, 4 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Pharmacy Practice**Course Abbreviation:** PHM 1525**Classification:** Vocational-Technical Core**Description:** Medication distribution systems utilized in retail and hospital pharmacy, including processing of individual prescriptions, floor stock distribution, unit dose systems, and IV admixture. Topics discussed include hazardous waste handling, infection control, principles of quality assurance, and equipment use and maintenance. Exercises in packaging, unit dose functions, aseptic compounding, parental admixture, and use of computer database systems will be performed in the laboratory. (5 sch: 3 hr. lecture, 4 hr. lab)**Prerequisites:** 1st Semester Pharmacy Technology Courses

e e e e e

Course Name: Pharmacology II**Course Abbreviation:** PHM 2434**Classification:** Vocational-Technical Core**Description:** A study of human disease processes and rational pharmacotherapeutics relating to the cardiovascular, respiratory, renal, hematologic, and dermatologic systems as well as eyes, ears, nose, and throat. Indications, contraindications, mechanism of action, side effects, dosages, and methods of administration including how these principles can be utilized in pharmacy practice. (4 sch: 4 hr. lecture)**Prerequisites:** 2nd Semester Pharmacy Technology Courses

e e e e e

Course Name: Nonprescription Drugs and Devices

Course Abbreviation: PHM 2534

Classification: Vocational-Technical Core

Description: Reviews the categories of the over-the-counter medications, explains the types and procedures of home monitoring equipment, and provides guidelines for patient counseling. Explains durable and surgical/non-durable medical products. Highlights concepts of vitamins, herbs, and nutritional supplements, and the nontraditional treatment options. (4 sch: 3 hr. lecture, 2 hr. lab)

Prerequisites: 2nd Semester Pharmacy Technology Courses

e e e e e

Course Name: Drug Information Research

Course Abbreviation: PHM 2543

Classification: Vocational-Technical Core

Description: The concepts of obtaining pertinent patient information and data collection including patient medical record, patient interviews, drug use reviews, literature resources, and problem solving. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: 3rd Semester Pharmacy Technology Courses

e e e e e

Course Name: Practicum I

Course Abbreviation: PHM 2614

Classification: Vocational-Technical Core

Description: Application of pharmacist technician concepts in community and hospital pharmacy, home health, and extended care settings. Emphasis is placed on functions associated with drug distribution systems. (4 sch: 12 hours of clinical)

Prerequisites: 2nd Semester Pharmacy Technology Courses

e e e e e

Course Name: Practicum II

Course Abbreviation: PHM 2624

Classification: Vocational-Technical Core

Description: Advanced level internship rotations in community hospitals, medical centers, or pharmaceutical manufacturers. Emphasis is placed on intravenous admixture preparations, total parenteral nutrition, chemotherapy preparations, and the use of controlled and investigational drugs in an institution. (4 sch: 12 hr. clinical)

Prerequisites: 3rd Semester Pharmacy Technology Courses

e e e e e

Course Name: Pharmacy Management

Course Abbreviation: PHM 2715

Classification: Vocational-Technical Core

Description: Discussion of pharmacy functions relating to policies and procedures, drug purchasing, inventory control, drug recall and returns, and maintaining transaction records. The class will explore several retail functions such as payments, billing, oral and written communications, computer data collection, and drug merchandising. (5 sch: 4 hr. lecture, 2 hr. lab)

Prerequisites: 2nd Semester Pharmacy Technology Courses

e e e e e

Course Name: Pharmacy Transition

Course Abbreviation: PHM 2813

Classification: Vocational-Technical Core

Description: Further develops decision-making skills and promotes an interest in continued professional development. Employment opportunities and responsibilities, as well as preparation for the National Certification Exam, are emphasized. (3 sch: 3 hr. lecture)

Prerequisites: 3rd Semester Pharmacy Technology Courses

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PHYSICAL THERAPIST ASSISTANT

e e e e e

Course Name: Survey of Physical Therapy

Course Abbreviation: PTA 1101

Classification: Vocational-Technical Core

Description: This course introduces the role of the Physical Therapist Assistant in the health care system, and the purpose, philosophy, and history of the profession and the American Physical Therapy Association. (1 sch: 1 hr. lecture)

Prerequisites: Admission to Physical Therapist Assistant Program

e e e e e

Course Name: Health Care Experience I

Course Abbreviation: PTA 1111

Classification: Vocational-Technical Core

Description: This course is designed to provide the student with observation of physical therapy activities. The student has the opportunity to gain a 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

e e e e e

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

e e e e e

Course Name: PTA Practicum I

Course Abbreviation: PTA 1132

Classification: Vocational-Technical Core

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 Core

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

e e e e e

Course Name: Health Care Experience II**Course Abbreviation:** PTA 1151**Classification:** Vocational-Technical Core**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

e e e e e

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

e e e e e

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)

e e e e e

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)



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. Manual muscle testing is also included. 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)



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)

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



Course Name: Therapeutic Exercise and Rehabilitation II

Course Abbreviation: PTA 2333

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. (3 sch: 2 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 1413)



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)

Prerequisites: Core Physical Therapist Assistant courses



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) which provides supervised clinical experiences in demonstrating the attributes and applying the skills which prepare students for entry into the physical therapy profession. (4 sch: 12 hr. clinical)

Prerequisites: Core Physical Therapist Assistant courses

e e e e e

Course Name: Clinical Education III

Course Abbreviation: PTA 2434

Classification: Vocational-Technical Core

Description: This is the second of three culminating clinical education experiences which provides supervised clinical experiences in demonstrating the attributes and applying the skills which prepare students for entry into the Physical Therapy profession. (4 sch: 12 hr. clinical)

Prerequisites: Core Physical Therapist Assistant courses

e e e e e

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) which provides supervised clinical experiences in demonstrating the attributes and applying the skills which prepare students for entry into the Physical Therapy profession. (4 sch: 12 hr. clinical)

Co/Prerequisites: All Core Physical Therapist Assistant and Clinical Education courses

e e e e e

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)

Co/Prerequisites: 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 1413), Therapeutic Exercise and Rehabilitation I (PTA 1324), and Therapeutic Exercise and Rehabilitation II (PTA 2333)

e e e e e

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)

Prerequisites: 4 semesters of core Physical Therapist Assistant coursework

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MARKETING AND RELATED TECHNOLOGY
Banking & Finance Technology

BANKING & FINANCE TECHNOLOGY**e e e e e****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**e e e e e****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)**Prerequisites:** None**e e e e e****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 will include 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**e e e e e****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)**Prerequisites:** None

e e e e e

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)**Prerequisites:** None

e e e e e

Course Name: Professional Development in Financial Institutions I**Course Abbreviation:** BFT 1411**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. (1 sch: 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Professional Development in Financial Institutions II**Course Abbreviation:** BFT 1421**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. (1 sch: 2 hr. lab)**Prerequisites:** None

e e e e e

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

e e e e e

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)**Prerequisites:** None

e e e e e

Course Name: Professional Development in Financial Institutions III

Course Abbreviation: BFT 2431

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. (1 sch: 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Professional Development in Financial Institutions IV

Course Abbreviation: BFT 2441

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. (1 sch: 2 hr. lab)

Prerequisites: None

e e e e e

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: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

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: 2 hr. lecture, 2 hr. lab)

Prerequisite: None

e e e e e

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

e e e e e

Course Name: Special Project in Banking and Finance Technology

Course Abbreviation: BFT 2914

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. (4 sch: 3 hr. lecture, 2 hr. lab)

Prerequisites: Approval of instructor

e e e e e

TRADE, INDUSTRIAL, AND RELATED TECHNOLOGY
Automotive Vehicles and Accessories Marketing
Barber/Stylist
Cosmetology
Electrical Technology
Graphic Design Technology
Graphics and Print Communications
Jewelry and Watch Repair Cluster
Plumber and Pipefitter/Steamfitter

AUTOMOTIVE VEHICLES AND ACCESSORIES MARKETING

e e e e e

Course Name: Orientation and Safety Procedures

Course Abbreviation: AAV 1112

Classification: Vocational-Technical Core

Description: An orientation to the history of accessories marketing, job opportunities, and the physical structure of the industry. Safety procedures including OSHA and EPA regulations, proper use of hand and power tools, shop hazards, and legal responsibilities are discussed and implemented throughout this course. (2 sch: 2 hr. lecture)

Prerequisites: None

e e e e e

Course Name: Operational Procedures

Course Abbreviation: AAV 1126

Classification: Vocational-Technical Core

Description: Everyday operations in the auto parts business, including proper business procedures, customer service, and sales procedures. (6 sch: 3 hr. lecture, 6 hr. lab)

Prerequisites: None

e e e e e

Course Name: Automotive Systems I

Course Abbreviation: AAV 1214

Classification: Vocational-Technical Core

Description: Function and identification of the power train, including engine, transmission, drive line, and axles. (4 sch: 1 hr. lecture, 6 hr. lab)

Prerequisite: None

e e e e e

Course Name: Automotive Systems II

Course Abbreviation: AAV 1224

Classification: Vocational-Technical Core

Description: Function and identification of automotive systems, including brake systems, cooling systems, electrical systems, heating and air conditioning systems, and suspension systems. (4 sch: 1 hr. lecture, 6 hr. lab)

Prerequisite: None

e e e e e

Course Name: Catalog Information Systems

Course Abbreviation: AAV 1316

Classification: Vocational-Technical Core

Description: Hard copy, microfiche, and computerized catalogs. Also included are the writing of invoices, interpreting price sheets, and calculating discounts. (6 sch: 3 hr. lecture, 6 hr. lab)

Prerequisites: None

e e e e e

Course Name: Merchandising

Course Abbreviation: AAV 1322

Classification: Vocational-Technical Core

Description: General parts store layout to include merchandise displays and parts bin layout. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisite: None

e e e e e

Course Name: Internal Operations

Course Abbreviation: AAV 1414

Classification: Vocational-Technical Core

Description: Daily operations of a parts store including shipping and receiving, stocking and storing merchandise, counter operations, and physical inventory. (4 sch: 1 hr. lecture, 6 hr. lab)

Prerequisite: None

e e e e e

Course Name: Internal Sales

Course Abbreviation: AAV 1424

Classification: Vocational-Technical Core

Description: Sales skills using hard copy and computerized cataloging and pricing. (4 sch: 1 hr. lecture, 6 hr. lab.)

Prerequisite: None

e e e e e

Course Name: Supervised Work Experience in Automotive Vehicles and Accessories Marketing

Course Abbreviation: AAV 192(1-6)

Classification: Vocational-Technical Core

Description: A cooperative program between the industry and education that is designed to integrate the student's technical studies with technical experience. Variable credit is awarded on the basis of one semester hour per 45 contact hours. (1-6 sch variable: 3-18 hr. externship)

Prerequisites: None

e e e e e

BARBER/STYLIST

e e e e e

Course Name: Basic Practices in Barbering

Course Abbreviation: BAV 1118

Classification: Vocational-Technical Core

Description: Basic practices including orientation, safety, and practical experiences in handling tools and hair cutting. Practices are done independently with supervision. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: None

e e e e e

Course Name: Fundamental Practices in Barbering I

Course Abbreviation: BAV 1218

Classification: Vocational-Technical Core

Description: Fundamental practices in styling, shampooing, blow drying, perm rolling, and perm processing. Practices are done independently with supervision. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: None

e e e e e

Course Name: Fundamental Practices in Barbering II

Course Abbreviation: BAV 1318

Classification: Vocational-Technical Core

Description: Sanitization, sterilization, prevention and control of contamination and decontamination in the workplace, hygiene and good grooming, hair analysis, and the application of a chemical hair relaxer and style. Practices are done independently with supervision. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: None

e e e e e

Course Name: Intermediate Practices in Barbering I

Course Abbreviation: BAV 1418

Classification: Vocational-Technical Core

Description: Theory of colors, classifications of hair color, color preparation and applications, and treatment of damaged hair. Practices are done independently with supervision. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: None

e e e e e

Course Name: Intermediate Practices in Barbering II

Course Abbreviation: BAV 1518

Classification: Vocational-Technical Core

Description: Additional study of the structure and function of the skin, common skin disorders, and scalp and hair disorders. Practices are included in providing facial massages, rendering plain facials, and barbering services previously introduced. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: Basic Practices in Barbering (BAV 1118) and Fundamental Practices in Barbering I (BAV 1218)

e e e e e

Course Name: Advanced Practices in Barbering

Course Abbreviation: BAV 1618

Classification: Vocational-Technical Elective

Description: Mustache and beard trimming. Also includes business management and business law applicable to barber/style shop management. (8 sch: 2 hr. lecture, 18 hr. lab)

Prerequisites: Fundamental Practices in Barbering II (BAV 1318) and Intermediate Practices in Barbering I (BAV 1418)

e e e e e

COSMETOLOGY

e e e e e

Course Name: Fundamentals of Cosmetology**Course Abbreviation:** COV 1117**Classification:** AOC Core (Cosmetology)**Description:** Classroom theory and lab practice as governed by Mississippi cosmetology laws, rules, and regulations involved in cosmetology practices and safety precautions associated with each. In accordance with the State Cosmetology Board Regulations, this practice is provided on mannequins or classmates; no work is performed on clients until 240 clock hours have been successfully completed. (7 sch: 3 hr. lecture, 12 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Cosmetology Theory I**Course Abbreviation:** COV 1213**Classification:** AOC Core (Cosmetology and Nail Technician)**Description:** Information on the theory of cosmetology, including sterilization and sanitation, decontamination and infection control, safety, hygiene and good grooming, professional ethics, and sales. Basics of bacteriology, hair treatment, hair shaping, hair styling, and finger waves are also covered. (3 sch: 2 hr. lecture, 3 hr. lab)**Pre/corequisites:** Consent of instructor.

e e e e e

Course Name: Cosmetology Theory II**Course Abbreviation:** COV 1225**Classification:** AOC Core (Cosmetology and Nail Technician)**Description:** Theory of cosmetology as related to anatomy and physiology, dermatology, trichology, and chemistry. Permanent waving, hair relaxing, coloring and lightening, and safety practices are covered. (5 sch: 4 hr. lecture, 3 hr. lab)**Pre/corequisites:** Cosmetology Theory I (COV 1213)

e e e e e

Course Name: Cosmetology Theory III**Course Abbreviation:** COV 1236**Classification:** AOC Core (Cosmetology)**Description:** Advanced theory, facials and makeup, thermal techniques, safety precautions, and salon management and operation. (6 sch: 5 hr. lecture, 3 hr. lab)**Prerequisites:** Cosmetology Theory II (COV 1225)

e e e e e

Course Name: Scalp and Hair Treatment

Course Abbreviation: COV 1311

Classification: AOC Core (Cosmetology)

Description: Practical applications of shampooing and scientific brushing including preparation, procedures, completion, safety rules, selection and use of shampoo products, and practical application of treatments for different types of hair and scalps. (1 sch: 3 hr. lab)

Pre/corequisites: Cosmetology Theory I (COV 1213)

e e e e e

Course Name: Hair Shaping

Course Abbreviation: COV 1321

Classification: AOC Core (Cosmetology)

Description: Practical applications in hair shaping with scissors, clippers, and razor. Practice in identification and use of implements for sectioning and hair thinning. (1 sch: 3 hr. lab)

Pre/corequisites: Cosmetology Theory I (COV 1213)

e e e e e

Course Name: Permanent Waves

Course Abbreviation: COV 1333

Classification: AOC Core (Cosmetology)

Description: Practical applications in permanent waving. Includes principles and product selection, requirements, processes, implements, supplies, and safety precautions. (3 sch: 9 hr. lab)

Pre/corequisites: Cosmetology Theory II (COV 1225)

e e e e e

Course Name: Hair Coloring and Lightening

Course Abbreviation: COV 1345

Classification: AOC Core (Cosmetology)

Description: Practical applications in coloring and hair lightening. Includes instruction in principles of hair color and safety precautions of hair color. (5 sch: 2 hr. lecture, 9 hr. lab)

Pre/corequisites: Cosmetology Theory II (COV 1225)

e e e e e

Course Name: Chemical Hair Relaxing

Course Abbreviation: COV 1352

Classification: AOC Core (Cosmetology)

Description: Practical applications in chemical hair relaxing techniques, basic steps and processes, and safety precautions. (2 sch: 6 hr. lab)

Pre/corequisites: Cosmetology Theory II (COV 1225)

Course Name: Thermal Techniques

Course Abbreviation: COV 1362

Classification: AOC Core (Cosmetology)

Description: Practical applications in thermal hair styling, to include purpose, procedures, product selection, and safety precautions. (2 sch: 6 hr. lab)

Pre/corequisites: Cosmetology Theory III (COV 1236)

e e e e e

Course Name: Artistry of Hair Design/Wet Hairstyling

Course Abbreviation: COV 1372

Classification: AOC Core (Cosmetology)

Description: Practical applications in styling and finger waving which include product selection, preparation, methods, pin curls, roller curls, techniques for combing and brushing, and artistry in hair styling. (2 sch: 6 hr. lab)

Pre/corequisites: Cosmetology Theory I (COV 1213)

e e e e e

Course Name: Manicure and Pedicure

Course Abbreviation: COV 1512

Classification: AOC Core (Cosmetology and Nail Technician)

Description: Practical applications in manicuring and pedicuring. Instruction includes nail structure, adjoining structure, nail growth, disorders and diseases, massage and sanitary care, and safety considerations. (2 sch: 1 hr. lecture, 3 hr. lab)

Pre/corequisites: None

e e e e e

Course Name: Nail Technology

Course Abbreviation: COV 1525

Classification: AOC Core (Nail Technician)

Description: Practical applications in nail technology. Instruction includes safety procedures, basic chemical processes, French manicure and pedicure, nail art, business aspects, and laws which regulate cosmetology in Mississippi. (5 sch: 1 hr. lecture, 12 hr. lab)

Prerequisites: None

e e e e e

Course Name: Facials and Makeup

Course Abbreviation: COV 1612

Classification: AOC Core (Cosmetology)

Description: Practical applications in providing facial treatment. Includes physiological effects, facial treatment for different skin types, procedures for applying cosmetics, corrective makeup, and safety precautions. (2 sch: 6 hr. lab)

Pre/corequisites: Cosmetology Theory III (COV 1236)

e e e e e

Course Name: Salon Management

Course Abbreviation: COV 1712

Classification: AOC Core (Cosmetology)

Description: Practical applications in opening and operating a salon in accordance with state regulations. (2 sch: 6 hr. lab)

Pre/corequisites: Cosmetology Theory III (COV 1236)

e e e e e

Course Name: Cosmetology Teacher Training I

Course Abbreviation: COV 2816

Classification: AOC Core (Cosmetology Teacher Training)

Description: Instruction will be given in developing appropriate communication skills, effective use of visual aids, identification of various teaching styles, and practical application of cosmetology instruction. (6 sch: 3 hr. lecture, 9 hr. lab)

Pre/corequisites: Students who have at least two years active practical experience as a licensed cosmetologist and currently hold a valid Mississippi cosmetology license.

e e e e e

Course Name: Cosmetology Teacher Training II

Course Abbreviation: COV 2826

Classification: AOC Core (Cosmetology Teacher Training)

Description: Instruction will be given in development of instructional methods, development of visual aids, development of effective evaluation, and practical application of cosmetology instruction. (6 sch: 3 hr. lecture, 9 hr. lab)

Pre/corequisites: Cosmetology Teacher Training I (COV 2816)

e e e e e

Course Name: Cosmetology Teacher Training III

Course Abbreviation: COV 2836

Classification: AOC Core (Cosmetology Teacher Training)

Description: Instruction will be given in development of appropriate lesson plans and practical application of cosmetology instruction. (6 sch: 3 hr. lecture, 9 hr. lab)

Pre/corequisites: Cosmetology Teacher Training II (COV 2826)

e e e e e

Course Name: Cosmetology Teacher Training IV

Course Abbreviation: COV 2846

Classification: AOC Core (Cosmetology Teacher Training)

Description: Instruction will be given in classroom management techniques; cosmetology laws, rules, and regulations; and practical application of cosmetology instruction. (6 sch: 3 hr. lecture, 9 hr. lab)

Pre/corequisites: Cosmetology Teacher Training III (COV 2836)

ELECTRICAL TECHNOLOGY

e e e e e

Course Name: Fundamentals of Electricity**Course Abbreviation:** ELT 1192**Classification:** Vocational-Technical Core**Description:** Fundamental skills associated with all electrical courses. Safety, basic tools, special tools, equipment, and introduction to simple AC and DC circuits. (2 sch: 1 hr. lecture; 2 hr. lab)**Prerequisites:** None

e e e e e

Course Name: Residential/Light Commercial Wiring**Course Abbreviation:** ELT 1113**Classification:** Vocational-Technical Core**Description:** Advanced skills related to the wiring of multi-family and small commercial buildings. Includes instruction and practice in service entrance installation, specialized circuits, and the use of commercial raceways. (3 sch: 2 hr. lecture, 2 hr. lab)**Pre/Corequisites:** Fundamentals of Electricity (ELT 1192) or equivalent

e e e e e

Course Name: Commercial and Industrial Wiring**Course Abbreviation:** ELT 1123**Classification:** Vocational-Technical Core**Description:** Instruction and practice in the installation of commercial and industrial electrical services including the types of conduit and other raceways, NEC code requirements, and three-phase distribution networks. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** Fundamentals of Electricity (ELT 1192) or equivalent

e e e e e

Course Name: Electrical Power**Course Abbreviation:** ELT 1213**Classification:** Vocational-Technical Core**Description:** Electrical motors and their installation. Instruction and practice in using the different types of motors, transformers, and alternators. (3 sch: 2 hr. lecture, 2 hr. lab)**Pre/Corequisites:** Fundamentals of Electricity (ELT 1192) or equivalent

e e e e e

Course Name: Motor Maintenance and Troubleshooting**Course Abbreviation:** ELT 1223**Classification:** Vocational-Technical Core**Description:** Principles and practice of electrical motor repair. Includes topics on the disassembly/assembly and preventive maintenance of common electrical motors. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisites:** Fundamentals of Electricity (ELT 1192) or equivalent

e e e e e

Course Name: Branch Circuit and Service Entrance Calculations

Course Abbreviation: ELT 1253

Classification: Vocational-Technical Elective

Description: Calculating circuit sizes for all branch circuits and service entrances in residential installation. (3 sch: 2 hr. lecture, 2 hr. lab)

Pre/Corequisites: None

e e e e e

Course Name: Blueprint Reading/Planning in Residential Installation

Course Abbreviation: ELT 1263

Classification: Vocational-Technical Elective

Description: Architectural symbols and electric symbols needed to read blueprints. All elevations and various plans associated with electrical wiring will be studied. Blank blueprints will be provided and a list of all appliances and their amperage will be supplied. The blanks will be filled with receptacles, switches, and lighting outlets as required by NEC. Circuit layouts for all switching will be demonstrated. All branch circuits will be plotted on the blueprint. (3 sch: 2 hr. lecture, 2 hr. lab)

Pre/Corequisites: None

e e e e e

Course Name: Switching Circuits for Residential, Commercial, and Industrial Applications

Course Abbreviation: ELT 1273

Classification: Vocational-Technical Elective

Description: Introduction to various methods by which single pole, 3-way, and 4-way switches are used in residential, commercial, and industrial installations. Also includes installation and operation of low voltage, remote control switching. (3 sch: 2 hr. lecture, 2 hr. lab)

Co/Prerequisites: None

e e e e e

Course Name: Estimating the Cost of a Residential Installation

Course Abbreviation: ELT 1283

Classification: Vocational-Technical Elective

Description: Cost of a residential installation. Specifications set forth for a particular structure. (3 sch: 2 hr. lecture, 2 hr. lab)

Co/Prerequisites: None

e e e e e

Course Name: Motor Control Systems

Course Abbreviation: ELT 1413

Classification: Vocational-Technical Core

Description: Installation of different motor control circuits and devices. Emphasis is placed on developing the student's ability to diagram, wire, and troubleshoot the different circuits and mechanical control devices. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Fundamentals of Electricity (ELT 1192) or equivalent

e e e e e

Course Name: Solid State Motor Control

Course Abbreviation: ELT 2424

Classification: Vocational-Technical Core

Description: Principles and operation of solid state motor control. Also, the design, installation, and maintenance of different solid state devices for motor control. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Motor Control Systems (ELT 1413)

e e e e e

Course Name: Programmable Logic Controllers

Course Abbreviation: ELT 2613

Classification: Vocational-Technical Core

Description: Use of programmable logic controllers (PLC's) in modern industrial settings. Also, the operating principles of PLC's and practice in the programming, installation, and maintenance of PLC's. (3 sch: 2 hr. lecture, 2 hr. lab.)

Prerequisites: Motor Control Systems (ELT 1413)

e e e e e

Course Name: Advanced Programmable Logic Controllers

Course Abbreviations: ELT 2623

Classification: Vocational-Technical Elective

Description: Advanced PLC course which provides instruction in the various operations, installations, and maintenance of electric motor controls. Also, information in such areas as sequencer, program control, block transfer used in analog input and output programming, and logical and conversion instructions. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: Programmable Logic Controllers (ELT 2613) and Motor Control Systems (ELT 1413)

e e e e e

Course Name: Special Project

Course Abbreviation: ELT 291(1-3)

Classification: Vocational-Technical Elective

Description: Practical application of skills and knowledge gained in other electronics or electronics-related technical courses. The instructor works closely with the student to insure that the selection of a project will enhance the student's learning experience. (1-3 sch: 2-6 hr. lab)

Prerequisites: Consent of instructor

e e e e e

Course Name: Supervised Work Experience

Course Abbreviation: ELT 292(1-6)

Classification: Vocational-Technical Elective

Description: 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 semester hour per 45 industrial contact hours. (1-6 sch: 3-18 hr. externship)

Prerequisites: Consent of instructor and completion of at least one semester of advanced coursework in electrical/electronics related programs

e e e e e

GRAPHIC DESIGN TECHNOLOGY

e e e e e

Course Name: Graphic Design and Production I**Course Abbreviation:** CAT 1113**Classification:** Vocational-Technical Core**Description:** An introduction to the skills of layout, typography, and the fundamentals needed of the graphic artist. The course will provide selected experiences involving layout, paste-up, simple renderings, printing processes, camera ready layouts, mechanicals, and layout formats. (3 sch: 6 hr. lab)**Prerequisite:** None

e e e e e

Course Name: Graphic Design and Production II**Course Abbreviation:** CAT 1123**Classification:** Vocational-Technical Core**Description:** A continuation of Graphic Design and Production I with concentration on color printing, mechanical processes, color separations, screens, cropping, and scaling photographs/artwork for reproduction with continued emphasis on design, typography, assembly, and binding. The course will utilize both traditional and computer techniques. (3 sch: 6 hr. lab)**Prerequisite:** Graphic Design and Production I (CAT 1113)

e e e e e

Course Name: History of Graphic Design**Course Abbreviation:** CAT 1133**Classification:** Vocational-Technical Elective**Description:** Evolution of graphic communications from prehistoric times through present day. (3 sch: 3 hr. lecture)**Prerequisite:** None

e e e e e

Course Name: Typography**Course Abbreviation:** CAT 1143**Classification:** Vocational-Technical Elective**Description:** A comparison of traditional uses of typography with those of a more contemporary approach. This is an in-depth exploration of type in relation to meaning and form with a refined application of drawing skills before final output on computer. (3 sch: 2 hr. lecture, 2 hr. lab)**Prerequisite:** None

e e e e e

Course Name: Fundamentals of Graphic Computers**Course Abbreviation:** CAT 1213**Classification:** Vocational-Technical Core**Description:** An introduction to graphic interface computers related to the graphic design/commercial art industry, utilizing current software and related hardware. (3 sch: 1 hr. lecture, 4 hr. lab.)**Prerequisite:** None

e e e e e

Course Name: Graphic Design Studio

Course Abbreviation: CAT 2133

Classification: Vocational-Technical Core

Description: A concentrated study in graphic design/commercial art specifically related to regional industry needs. Emphasis will be placed on projects such as brochures, billboards, newsletters, flyers, newspaper ads, story boards, etc. according to industry needs. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisite: None

e e e e e

Course Name: Basic Photography

Course Abbreviation: CAT 2223

Classification: Vocational-Technical Elective

Description: An introduction to 35 mm black and white photography, with emphasis on the camera, exposure, composition, lighting, and basic darkroom techniques involving negative development and print making. (3 sch: 6 hr. lab.)

Prerequisite: None

e e e e e

Course Name: Basic Advertising Design

Course Abbreviation: CAT 2313

Classification: Vocational-Technical Core

Description: Concepts and methodology related to the graphic design/commercial art industry utilizing current software and related hardware. (3 sch: 6 hr. lab)

Prerequisite: Graphic Design and Production I (CAT 1113), Fundamentals of Graphic Computers (CAT 1213), or by consent of instructor

e e e e e

Course Name: Advanced Advertising Design

Course Abbreviation: CAT 2323

Classification: Vocational-Technical Core

Description: A continuation of Basic Advertising Design with emphasis on graphic computers to develop and produce advanced graphic design/commercial art projects. This course utilizes equipment and software used in industry. (3 sch: 6 hr. lab)

Prerequisite: Basic Advertising Design (CAT 2313)

e e e e e

Course Name: Practical Advertising Techniques

Course Abbreviation: CAT 2334

Classification: Vocational-Technical Core

Description: Performance skills needed for productive employment in the graphic design/commercial art field. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisite: Basic Advertising Design (CAT 2313) or by consent of instructor

e e e e e

Course Name: Rendering Techniques

Course Abbreviation: CAT 2413

Classification: Vocational-Technical Core

Description: A study of various illustration and rendering techniques with emphasis on rendering in markers and color pencils. The student will learn professional methods of illustrating, utilizing the camera and projection devices as tools for finished art work. (3 sch: 6 hr. lab)

Prerequisite: None

e e e e e

Course Name: Special Project in Graphic Design Technology

Course Abbreviation: CAT 291(1-6)

Classification: Vocational-Technical Elective

Description: Practical applications of skills and knowledge gained in other Graphic Design Technology courses. The instructor works closely with the student to ensure that selection of a special project enhances the student's learning experiences. (1-6 sch: 45 contact hours per sch)

Prerequisite: Completion of one semester of coursework in Graphic Design Technology program.

e e e e e

Course Name: Supervised Work Experience in Graphic Design Technology

Course Abbreviation: CAT 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: 3-18 hr. externship)

Prerequisite: Consent of instructor and the completion of two semesters of coursework in the Graphic Design Technology program.

e e e e e

GRAPHICS AND PRINT COMMUNICATIONS

e e e e e

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)

Prerequisites: None

e e e e e

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)

Prerequisites: None

e e e e e

Course Name: Graphic Design

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

e e e e e

Course Name: Process Camera and Darkroom

Course Abbreviation: GPV 1514

Classification: Vocational-Technical Core

Description: This course covers camera and darkroom techniques for line, halftone, and continuous tone photography. It includes study of films, diffusion transfer processes, chemistries, and special effects. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Film Assembly

Course Abbreviation: GPV 1524

Classification: Vocational-Technical Core

Description: This course includes instruction and practice of lithographic stripping techniques using a variety of flat systems commonly used in the graphic and print industry. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Platemaking

Course Abbreviation: GPV 1612

Classification: Vocational-Technical Core

Description: This course includes instruction and practice in the use of different processes and exposure systems for making plates for offset presses and duplicators. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Press Operations I

Course Abbreviation: GPV 1712

Classification: Vocational-Technical Core

Description: This course is an introduction to press operations with emphasis on safety practices, fundamental setup and operational procedures, and cleanup of offset presses and duplicators. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

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)

Prerequisites: GPV 1712 (Press Operations I)

e e e e e

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 multi-color printing. (3 sch: 6 hr. lab)

Pre/corequisites: GPV 1723 (Press Operations II)

e e e e e

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)

Prerequisites: None

e e e e e

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)

Prerequisites: Consent of the instructor

e e e e e

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. (1-3 sch: 3-9 hr. internship)

Prerequisites: Consent of the instructor

e e e e e

JEWELRY AND WATCH REPAIR CLUSTER

e e e e e

Course Name: Fundamentals of Watch and Jewelry Repair

Course Abbreviation: WJV 1114

Classification: Vocational-Technical Core

Description: This course includes a basic background and history of jewelry, as well as the modern watch. The course also includes tool making, use of various measuring instruments and gauges, use of torch for soldering as well as for heat treatment, filing brass projects to measurement, safety practices, and sharpening of turning gravers. Also included are polishing and cleaning jewelry, watch bands, take-in repairs, adjusting watch bands, engraving, and some battery installations. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Basic Jewelry Repair

Course Abbreviation: WJV 1224

Classification: AOC Core (Jewelry Design, Fabrication, and Repair)

Description: This course includes silver soldering rings using the torch to any size larger or smaller without the solder joint showing any imperfections. It also includes putting bright, ripple, hammered, florentine, and satin finishes on rings. The student must successfully demonstrate knowledge of jewelry processes, terms, nomenclature, and basic precautions to stones. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Fundamentals of Watch and Jewelry Repair (WJV 1114)

e e e e e

Course Name: Jewelry Casting and Design

Course Abbreviation: WJV 1234

Classification: AOC Core (Jewelry Design, Fabrication, and Repair)

Description: This course includes instruction in hand carving wax patterns, spruing, casting, burnout cycle, bombing, electrostripping, rubber molds, and wax injection. This course includes training in manufacturing of all types of jewelry. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Basic Jewelry Repair (WJV 1224)

e e e e e

Course Name: Jewelry Repair I

Course Abbreviation: WJV 1244

Classification: AOC Core (Jewelry Design, Fabrication, and Repair)

Description: Upon completion of this course, the student will be able to use the torch for soldering heads on rings, chains, rings, and wire fabrication. The student will be able to use the flexshaft to set various stones. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Jewelry Casting and Design (WJV 1234)

e e e e e

Course Name: Jewelry Repair II**Course Abbreviation:** WJV 1254**Classification:** AOC Core (Jewelry Design, Fabrication, and Repair)**Description:** Upon completion of the course, the student will be able to solder chains, jump rings, and all chain repair. The student will be able to re-tip old prongs and replace broken prongs, make rock salt nuggets, charcoal nuggets, solder bails on large items, engrave, test carat of gold, and make all general and minor repairs that come in over the counter from live work. (4 sch: 2 hr. lecture, 4 hr. lab)**Prerequisites:** Jewelry Repair I (WJV 1244)

e e e e e

Course Name: Jewelry Repair III**Course Abbreviation:** WJV 1264**Classification:** AOC Core (Jewelry Design, Fabrication, and Repair)**Description:** Upon completion of this course, the student will be able to successfully demonstrate the ability to completely build from round wires, square wire, and flat stock finished articles of fine jewelry . The student will also be able to use advance techniques to size rings and proper drilling of small holes for delicate soldering. The student will also be able to take in live work from over the counter and properly repair all the various types of everyday repairs. (4 sch: 2 hr. lecture, 4 hr. lab)**Prerequisites:** Jewelry Repair II (WJV 1254)

e e e e e

Course Name: Stone Setting**Course Abbreviation:** WJV 1274**Classification:** AOC Core (Jewelry Design, Fabrication, and Repair)**Description:** Upon completion of this course, the student will be able to successfully set stones level in cluster and multi-head rings using bearing burrs and hart burrs, setting burrs, and gravers. The student will be able to harden and temper steel and properly sharpen tools. The student will repair all live work and understand take-in procedures. Upon job completion, all stones must be bright, level, and secure. (4 sch: 2 hr. lecture, 4 hr. lab)**Prerequisites:** Jewelry Repair II (WJV 1254)

e e e e e

Course Name: Advanced Stone Setting**Course Abbreviation:** WJV 1284**Classification:** AOC Core (Jewelry Design, Fabrication, and Repair)**Description:** Upon completion of the course, the student will be able to successfully set stones level and secure in bar setting, bezel setting, channel setting, tube setting, gypsy setting, and multi-head setting (free-form). The student will be able to take in jewelry repairs using proper take-in procedures, repair carat gold jewelry as assigned, and wait on customers using professional practices. (4 sch: 2 hr. lecture, 4 hr. lab)**Prerequisites:** Stone Setting (WJV 1274)

e e e e e

Course Name: Mechanical Watch I**Course Abbreviation:** WJV 1124**Classification:** AOC Core (Watch Repair)

Description: This course includes identifying watch tools and the proper use and care of those tools. The course includes limited lathe work as it relates to sharpening of turning gravers. Students will learn to handle tools and watch parts with care using safety precautions. This course also includes disassembling, identifying watch parts along with the functions of those parts, and reassembling watches. Developing hand skills, proper use of eyewear, and adjusting the work station is necessary in the course. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Fundamentals of Watch and Jewelry Repair (WJV 1114)

e e e e e

Course Name: Mechanical Watch II**Course Abbreviation:** WJV 1134**Classification:** AOC Core (Watch Repair)

Description: This course concentrates on the disassembly and re-assembly process with emphasis on regular, calendar, automatics, and small ladies' watches as relates to servicing. The student is introduced to removing and replacing a balance staff, and basic removing and replacing parts. Also included is how to professionally clean and service all types of watches. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Mechanical Watch I (WJV 1124)

e e e e e

Course Name: Basic Quartz Analog**Course Abbreviation:** WJV 1144**Classification:** AOC Core (Watch Repair)

Description: This course introduces the student to the quartz watch and how the technology differs from the regular mechanical and other electric timepieces. The student will learn to test circuits and coils, along with other electrical components with safety in mind; to remove and replace parts; to properly clean and service a quartz watch; and to create retro-fitting for quartz watches. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Mechanical Watch II (WJV 1134)

e e e e e

Course Name: Watch Repair**Course Abbreviation:** WJV 1154**Classification:** AOC Core (Watch Repair)

Description: This course includes removing and replacing balance staffs of pocket watches, regular wrist watches, small ladies watches, and truing and poising those balance assemblies. This course encompasses minor repair and major repair such as stems/crowns, fitting crystals, tightening cannon pinions of various types, straightening hairsprings, setting up the escapement, troubleshooting, and problem solving techniques. Professional dress, professional skills, professional communication, and professional attitude are encouraged, with emphasis on future employment. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Basic Quartz Analog (WJV 1144)

e e e e e

Course Name: Advanced Watch Repair I

Course Abbreviation: WJV 1164

Classification: AOC Core (Watch Repair)

Description: This course includes cleaning and service of all types of watches as well as troubleshooting and problem solving techniques. It requires the student to be confident and increase speed and accuracy. Also included is major balance assembly repair such as staffing, truing, and poising with emphasis on special tools and their uses. This course should prepare the student to exhibit good habits, professional practices, and conduct conducive to the watch and jewelry industry. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Watch Repair (WJV 1154)

e e e e e

Course Name: Advanced Watch Repair II

Course Abbreviation: WJV 1174

Classification: AOC Core (Watch Repair)

Description: This course includes cleaning and servicing watches of various types and special features, such as chronometers, chronographs, etc. It requires less assistance from the instructor with speed and accuracy. It requires moderate intensity and concentration. The student is challenged to all types of repair such as crystal fitting, roller jewel setting, balance staffing, truing, poising and escapement setting, and any other type repair one might encounter with minimum advice from the instructor. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Advanced Watch Repair I (WJV 1164)

e e e e e

Course Name: Advanced Watch Repair III

Course Abbreviation: WJV 1184

Classification: AOC Core (Watch Repair)

Description: This course requires the student to be more accurate in troubleshooting and problem solving. It includes waterproofing, using innovative techniques as well as those found in the market place. Personal appearance becomes more important as it relates to the interview process. The student must have good customer relations, good professional practices, and a degree of initiative, as well as extrapolative ability in relationship to any watch. The student must be able to clean and service three or more watches in one cleaning basket to insure production methods. (4 sch: 2 hr. lecture, 4 hr. lab)

Prerequisites: Advanced Watch Repair II (WJV 1174)

e e e e e

PLUMBER AND PIPEFITTER/STEAMFITTER

e e e e e

Course Name: Fundamentals of Plumbing/Pipefitting

Course Abbreviation: PPV 1113

Classification: Vocational-Technical Core (Plumbing and Pipefitting)

Description: Job safety and health, including first aid. Also, occupational hazards and the scope of the OSHA law. Includes pipefitting and plumbing fittings, valves, hangers, and general trade fitting identification. Included are screwed, welded, flanged, soldered, brazed, glued, compression, and flared fittings. Identification and use of pipefitting and plumbing tools used in today's piping industry. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Blueprint Reading for Piping Trades

Course Abbreviations: PPV 1313

Classification: Vocational-Technical Core (Pipefitting and Plumbing)

Description: An in-depth understanding of blueprint reading. (3 sch: 1 hr. lecture, 4 hr. lab.)

Prerequisites: None

e e e e e

Course Name: Low Pressure Boilers

Course Abbreviation: PPV 1411

Classification: Vocational-Technical Core (Pipefitting and Plumbing)

Description: Safe operation of a low pressure boiler for heating, steam, and water heating. (1 sch: 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Tacking, Brazing, and Burning

Course Abbreviation: PPV 1213

Classification: AOC Core (Pipefitting) and Vocational-Technical Elective (Plumbing)

Description: Striking an arc, tacking metal together, setting up an oxyacetylene torch and burning, brazing and soldering, and cutting straight and bevel angles on flat steel and pipe. Safety procedures will be covered and emphasized. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Sketching

Course Abbreviation: PPV 1323

Classifications: AOC Core (Pipefitting) and Vocational-Technical Elective (Plumbing)

Description: Sketching, measuring, and recording required information to supplement oral descriptions and organize ideas to include individual piping components. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Basic Pipe Fabrication

Course Abbreviation: PPV 1423

Classification: AOC Core (Pipefitting)

Description: Use of pipefitting tools and equipment, different ways of cutting and fitting pipes, methods of calculating pipe fittings, and various types of fit-ups for different types of pipe. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Pipe Specifications and Systems

Course Abbreviation: PPV 1432

Classification: AOC Core (Pipefitting)

Description: Different metals used in making pipe; their sizes, weights, and strengths; and how they are manufactured. The pipe systems on ships and industrial plants are studied. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Advanced Pipefitting Lab

Course Abbreviation: PPV 1456

Classification: AOC Core (Pipefitting)

Description: Advanced pipefitting layout, fabrication, and testing of piping systems. (6 sch: 2 hr. lecture, 8 hr. lab)

Prerequisites: None

e e e e e

Course Name: Rigging and Signaling

Course Abbreviation: PPV 1812

Classification: AOC Core (Pipefitting) and Vocational-Technical Elective (Plumbing)

Description: Basic use of hand signals, rigging, and equipment. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Steel Ship Building and Marine Construction

Course Abbreviation: PPV 1823

Classification: Vocational-Technical Elective (Pipefitting)

Description: Structure of a ship and abbreviation of parts and sections of ships. Also, various types of piping systems, including both building and marine pipefitting systems. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Special Project in Pipefitting

Course Abbreviation: PPV 291(1-3)

Classification: Vocational-Technical Elective (Pipefitting)

Description: Practical application of skills and knowledge gained in other technical courses. The instructor works closely with the student to insure that the selection of a project will enhance the student's learning experience. (1-3 sch: 2-6 hr. lab)

Prerequisites: Consent of Instructor

e e e e e

Course Name: Supervised Work Experience in Pipefitting

Course Abbreviation: PPV 292(1-6)

Classification: Vocational-Technical Elective (Pipefitting)

Description: A cooperative program between industry and education and is designed to integrate the student's studies with industrial experience. Variable credit is awarded on the basis of semester hour per 45 industrial contact hours. (1-6 sch: 3-18 hr. externship)

Prerequisites: Consent of instructor

e e e e e

Course Name: Piping Level/Transit

Course Abbreviation: PPV 1443

Classification: AOC Core (Plumbing)

Description: Applications of the leveling instruments, shooting elevations, and grading pipes. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Drainage and Sewer Systems

Course Abbreviation: PPV 1513

Classification: AOC Core (Plumbing) and Vocational-Technical Elective (Pipefitting)

Description: Information and practical aspects of drainage and disposal systems and the Southern Standard Plumbing Code. Included are the installation of the drainage system in a residential unit covering health aspects and the disposal of poisonous gases arising from the discharge of traps. Also included is a history of plumbing and sewage treatment. Instruction is provided on elements of disposal systems, including sewer, septic tanks, tank size calculations, maintenance causes, and removal of sewer obstructions. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Heating Devices

Course Abbreviation: PPV 1612

Classification: AOC Core (Plumbing)

Description: Information on local codes for installing and repairing water heaters, force air units, and floor furnaces. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Gas Piping

Course Abbreviation: PPV 1622

Classification: AOC Core (Plumbing)

Description: Information on standard gas codes. The safe installation of gas appliances and gas lines, according to codes, will be included. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Domestic Systems

Course Abbreviation: PPV 1712

Classification: AOC Core (Plumbing) and Vocational-Technical Elective (Pipefitting)

Description: Information on the installation of a hot water system according to the unit fixture system. Also information on sizing and installation of a potable cold water system. (2 sch: 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Plumbing Fixtures Lab

Course Abbreviation: PPV 1722

Classification: AOC Core (Plumbing) and Vocational-Technical Elective (Pipefitting)

Description: Information on the installation of the rough-in and finish fixtures used in the plumbing construction according to Southern Standard Plumbing Code. (2 sch: 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Back Flow Cross Connection

Course Abbreviation: PPV 1732

Classification: AOC Core (Plumbing)

Description: Information on the different types of back flow devices, and the installation and testing of the devices. (2 sch: 1 hr. lecture, 2 hr. lab)

Prerequisites: None

e e e e e

Course Name: Advanced Plumbing Lab

Course Abbreviation: PPV 1743

Classification: AOC Core (Plumbing)

Description: Additional study in the area of advanced plumbing in the commercial area. (3 sch: 1 hr. lecture, 4 hr. lab)

Prerequisites: None

e e e e e

Course Name: Special Project in Plumbing

Course Abbreviation: PPV 191(1-3)

Classification: Vocational-Technical Elective (Plumbing)

Description: Practical application of skills and knowledge gained in other technical courses. The instructor works closely with the student to insure that the selection of a project will enhance the student's learning experience. (1-3 sch: 2-6 hr. lab)

Prerequisites: Consent of Instructor

e e e e e

Course Name: Supervised Work Experience in Plumbing

Course Abbreviation: PPV 192(1-6)

Classification: Vocational-Technical Elective (Plumbing)

Description: This course is a cooperative program between industry and education and is designed to integrate the student's studies with industrial experience. Variable credit is awarded on the basis of semester hour per 45 industrial contact hours. (1-6 sch: 3-18 hr. externship)

Prerequisites: Consent of instructor

e e e e e

WORK-BASED LEARNING

WORK-BASED LEARNING

e e e e e

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

Course Abbreviation(s): 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 worksite supervisor/mentor develop and implement a business/education contract (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 feedback (progress reviews). (1-3 sch: 3-9 hours externship)

Prerequisites: Concurrent enrollment in vocational-technical program area courses

e e e e e

APPENDIX A:
RELATED ACADEMIC TOPICS

APPENDIX A

RELATED ACADEMIC TOPICS FOR COMMUNICATIONS

- C1 Interpret written material.
- C2 Interpret visual materials (maps, charts, graphs, tables, etc.).
- C3 Listen, comprehend, and take appropriate actions.
- C4 Access, organize, and evaluate information.
- C5 Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.
- C6 Communicate ideas and information effectively using various oral and written forms for a variety of audiences and purposes.

EXPANDED TOPICS FOR COMMUNICATIONS

TOPIC C1: Interpret written material.

- C1.01 Read and follow complex written directions.
- C1.02 Recognize common words and meanings associated with a variety of occupations.
- C1.03 Adjust reading strategy to purpose and type of reading.
- C1.04 Use sections of books and reference sources to obtain information.
- C1.05 Compare information from multiple sources and check validity.
- C1.06 Interpret items and abbreviations used in multiple forms.
- C1.07 Interpret short notes, memos, and letters.
- C1.08 Comprehend technical words and concepts.
- C1.09 Use various reading techniques depending on purpose for reading.
- C1.10 Find, read, understand, and use information from printed matter or electronic sources.

TOPIC C2: Interpret visual materials (maps, charts, graphs, tables, etc.).

- C2.01 Use visuals in written and in oral presentations.
- C2.02 Recognize visual cues to meaning (layout, typography, etc.).
- C2.03 Interpret and apply information using visual materials.

TOPIC C3: Listen, comprehend, and take appropriate action.

- C3.01 Identify and evaluate orally-presented messages according to purpose.
- C3.02 Recognize barriers to effective listening.
- C3.03 Recognize how voice inflection changes meaning.
- C3.04 Identify speaker signals requiring a response and respond accordingly.
- C3.05 Listen attentively and take accurate notes.
- C3.06 Use telephone to receive information.
- C3.07 Analyze and distinguish information from formal and informal oral presentations.

TOPIC C4: Access, organize, and evaluate information.

- C4.01 Distinguish fact from opinion.
- C4.02 Use various print and non-print sources for specialized information.
- C4.03 Interpret and distinguish between literal and figurative meaning.
- C4.04 Interpret written or oral communication in relation to context and writer's point of view.
- C4.05 Use relevant sources to gather information for written or oral communication.

TOPIC C5: Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.

- C5.01 Select appropriate words for communication needs.
- C5.02 Use reading, writing, listening, and speaking skills to solve problems.
- C5.03 Compose inquiries and requests.
- C5.04 Write persuasive letters and memos.
- C5.05 Edit written reports, letters, memos, and short notes for clarity, correct grammar, and effective sentences.
- C5.06 Write logical and understandable statements, phrases, or sentences for filling out forms, for correspondence or reports.
- C5.07 Write directions or summaries of processes, mechanisms, events, or concepts.
- C5.08 Select and use appropriate formats for presenting reports.
- C5.09 Convey information to audiences in writing.
- C5.10 Compose technical reports and correspondence that meet accepted standards for written communications.

TOPIC C6: Communicate ideas and information using oral and written forms for a variety of audiences and purposes.

- C6.01 Give complex oral instructions.
- C6.02 Describe a business or industrial process/mechanism.
- C6.03 Participate effectively in group discussions and decision making.
- C6.04 Produce effective oral messages utilizing different media.
- C6.05 Explore ideas orally with partners.
- C6.06 Participate in conversations by volunteering information when appropriate and asking relevant questions when appropriate.
- C6.07 Restate or paraphrase a conversation to confirm one's own understanding.
- C6.08 Gather and provide information utilizing different media.
- C6.09 Prepare and deliver persuasive, descriptive, and demonstrative oral presentations.

RELATED ACADEMIC TOPICS FOR MATHEMATICS

- M1 Relate number relationships, number systems, and number theory.
- M2 Explore patterns and functions.
- M3 Explore algebraic concepts and processes.
- M4 Explore the concepts of measurement.
- M5 Explore the geometry of one-, two-, and three-dimensions.
- M6 Explore concepts of statistics and probability in real world situations.
- M7 Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

EXPANDED TOPICS FOR MATHEMATICS

TOPIC M1: Relate number relationships, number systems, and number theory.

- M1.01 Understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, and scientific notation) in real world and mathematical problem situations.
- M1.02 Develop number sense for whole numbers, fractions, decimals, integers, and rational numbers.
- M1.03 Understand and apply ratios, proportions, and percents in a wide variety of situations.
- M1.04 Investigate relationships among fractions, decimals, and percents.
- M1.05 Compute with whole numbers, fractions, decimals, integers, and rational numbers.
- M1.06 Develop, analyze, and explain procedures for computation and techniques for estimations.
- M1.07 Select and use an appropriate method for computing from among mental arithmetic, paper-and-pencil, calculator, and computer methods.
- M1.08 Use computation, estimation, and proportions to solve problems.
- M1.09 Use estimation to check the reasonableness of results.

TOPIC M2: Explore patterns and functions.

- M2.01 Describe, extend, analyze, and create a wide variety of patterns.
- M2.02 Describe and represent relationships with tables, graphs, and rules.
- M2.03 Analyze functional relationships to explain how a change in one quantity results in a change in another.
- M2.04 Use patterns and functions to represent and solve problems.
- M2.05 Explore problems and describe results using graphical, numerical, physical, algebraic, and verbal mathematical models or representations.
- M2.06 Use a mathematical idea to further their understanding of other mathematical ideas.
- M2.07 Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as art, music, and business.

TOPIC M3: Explore algebraic concepts and processes.

- M3.01 Represent situations and explore the interrelationships of number patterns with tables, graphs, verbal rules, and equations.
- M3.02 Analyze tables and graphs to identify properties and relationships and to interpret expressions and equations.
- M3.03 Apply algebraic methods to solve a variety of real world and mathematical problems.

TOPIC M4: Explore the concepts of measurement.

- M4.01 Estimate, make, and use measurements to describe and compare phenomena.
- M4.02 Select appropriate units and tools to measure to the degree of accuracy required in a particular situation.
- M4.03 Extend understanding of the concepts of perimeter, area, volume, angle measure, capacity, and weight and mass.
- M4.04 Understand and apply reasoning processes, with special attention to spatial reasoning and reasoning with proportions and graphs.

TOPIC M5: Explore the geometry of one-, two-, and three-dimensions.

- M5.01 Identify, describe, compare, and classify geometric figures.
- M5.02 Visualize and represent geometric figures with special attention to developing spatial sense.
- M5.03 Explore transformations of geometric figures.
- M5.04 Understand and apply geometric properties and relationships.
- M5.05 Classify figures in terms of congruence and similarity and apply these relationships.

TOPIC M6: Explore the concepts of statistics and probability in real world situations.

- M6.01 Systematically collect, organize, and describe data.
- M6.02 Construct, read, and interpret tables, charts, and graphs.
- M6.03 Develop an appreciation for statistical methods as powerful means for decision making.
- M6.04 Make predictions that are based on exponential or theoretical probabilities.
- M6.05 Develop an appreciation for the pervasive use of probability in the real world.

TOPIC M7: Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

- M7.01 Use computers and/or calculators to process information for all mathematical situations.
- M7.02 Use problem-solving approaches to investigate and understand mathematical content.

- M7.03 Formulate problems from situations within and outside mathematics.
- M7.04 Generalize solutions and strategies to new problem situations.

RELATED ACADEMIC TOPICS FOR SCIENCE

- S1 Explain the Anatomy and Physiology of the human body.
- S2 Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.
- S3 Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.
- S4 Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.
- S5 Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.
- S6 Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.
- S7 Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance, population genetics, the structure and function of DNA, and current applications of DNA technology.
- S8 Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

EXPANDED TOPICS FOR SCIENCE

TOPIC S1: Explain the Anatomy and Physiology of the human body.

- S1.01 Recognize common terminology and meanings.
- S1.02 Explore the relationship of the cell to more complex systems within the body.
- S1.03 Summarize the functional anatomy of all the major body systems.
- S1.04 Relate the physiology of the major body systems to its corresponding anatomy.
- S1.05 Compare and contrast disease transmission and treatment within each organ system.
- S1.06 Explore the usage of medical technology as related to human organs and organ systems.
- S1.07 Explain the chemical composition of body tissue.

TOPIC S2: Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.

- S2.01 Identify the major types and structures of plants, viruses, monera, algae protista, and fungi.

- S2.02 Explain sexual and asexual reproduction.
- S2.03 Describe the ecological importance of plants as related to the environment.
- S2.04 Analyze the physical chemical and behavioral process of a plant.
- TOPIC S3: Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.
- S3.01 Explain the morphology, anatomy, and physiology of animals.
- S3.02 Describe the characteristics, behaviors, and habitats of selected animals.
- TOPIC S4: Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.
- S4.01 Examine minerals and their identification, products of the rock cycle, byproducts of weathering, and the effects of erosion.
- S4.02 Relate the Hydrologic Cycle to include groundwater its zones, movement, and composition; surface water systems, deposits, and runoff.
- S4.03 Consider the effects of weather and climate on the environment.
- S4.04 Examine the composition of seawater; wave, tides, and currents; organisms, environment, and production of food; energy, food and mineral resources of the oceans.
- TOPIC S5: Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.
- S5.01 Examine the science of chemistry to include the nature of matter, symbols, formulas and nomenclature, and chemical equations.
- S5.02 Identify chemical reactions including precipitation, acids-bases, and reduction-oxidation.
- S5.03 Explore the fundamentals of chemical bonding and principles of equilibrium.
- S5.04 Relate the behavior of gases.
- S5.05 Investigate the structure, reactions, and uses of organic compounds; and investigate nuclear chemistry and radiochemistry.
- TOPIC S6: Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.
- S6.01 Examine fundamentals of motion of physical bodies and physical dynamics.
- S6.02 Explore the concepts and relationships among work, power, and energy.
- S6.03 Explore principles, characteristics, and properties of electricity, magnetism, light energy, thermal energy, and wave energy.
- S6.04 Identify principles of modern physics related to nuclear physics.

TOPIC S7: Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance; population genetics, the structure and function of DNA, and current applications of DNA technology.

S7.01 Examine principles, techniques, and patterns of traits and inheritance in organisms.

S7.02 Apply the concept of population genetics to both microbial and multicellular organism.

S7.03 Identify the structure and function of DNA and the uses of DNA technology in science, industry, and society.

TOPIC S8: Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

S8.01 Apply the components of scientific processes and methods in classroom and laboratory investigations.

S8.02 Observe and practice safe procedures in the classroom and laboratory.

S8.03 Demonstrate proper use and care for scientific equipment.

S8.04 Investigate science careers, and advances in technology.

S8.05 Communicate results of scientific investigations in oral, written, and graphic form.

APPENDIX B:
WORKPLACE SKILLS

APPENDIX B
WORKPLACE SKILLS FOR THE 21ST CENTURY

- WP1 Allocates resources (time, money, materials and facilities, and human resources).
- WP2 Acquires, evaluates, organizes and maintains, and interprets/communicates information, including the use of computers.
- WP3 Practices interpersonal skills related to careers including team member participation, teaching other people, serving clients/customers, exercising leadership, negotiation, and working with culturally diverse.
- WP4 Applies systems concept including basic understanding, monitoring and correction system performance, and designing and improving systems.
- WP5 Selects, applies, and maintains/troubleshoots technology.
- WP6 Employs thinking skills including creative thinking, decision making, problem solving, reasoning, and knowing how to learn.
- WP7 Basic Skills: Employs basic academic skills including reading, writing, arithmetic and mathematics, speaking, and listening.
- WP8 Personal Qualities: Practices work ethics related to individual responsibility, integrity, honest, and personal management.