

Professional-Technical Approved Programs

and

Approved Course Titles, Codes and Descriptions

Revised September 2009



Idaho Division of Professional-Technical Education

Idaho Division of Professional-Technical Education
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AGRICULTURE AND NATURAL RESOURCES

PROFESSIONAL-TECHNICAL APPROVED COURSES

IBEDS		
18001	AG 0110	Introduction to Agricultural Education
18002	AG 0120	Introduction to the Agricultural Industry
18401	AG 0130	Introduction to Agricultural Mechanics
18101	AG 0140	Introduction to the Livestock Industry
18051	AG 0150	Introduction to the Agricultural Plant Industry
18404	AG 0210	Agricultural Welding
18404	AG 0211	Advanced Agricultural Welding
18402	AG 0220	Agricultural Power Technology
20110	AG 0221	Small Gasoline Engines
18402	AG 0222	Agricultural Power Technology/Large Engines
18402	AG 0225	Agricultural Systems/Electricity and Hydraulics
18402	AG 0227	Agricultural Machinery
18403	AG 0230	Agricultural Structures
18405	AG 0240	Agricultural Fabrication
18103	AG 0310	Applied Livestock Management
18051	AG 0320	Applied Crop Management
18056	AG 0330	Landscape Design
18056	AG 0335	Floral Design and Marketing
18056	AG 0337	Advanced Floral Design and Marketing
18053	AG 0340	Applied Greenhouse and Nursery Management
18501	AG 0350	Forestry and Wildlife Management
18203	AG 0410	Personal Skill Development
18201	AG 0460	Agribusiness Management and Marketing
12202	AG 0470	Agricultural Sales
18051	AG 0510	Botany/Plant and Soil Science
18051	AG 0512	Botany/Science of Plant Growth and Development
18052	AG 0514	Botany/Horticulture Plant Science
18502	AG 0516	Botany/Forestry Science
18503	AG 0517	Botany/Advanced Forestry Science
18504	AG 0518	Botany/Range Science
18504	AG 0520	Ecology/Natural Resource Science
18504	AG 0525	Ecology/Environmental Science
18505	AG 0526	Intro to Environmental Science Technology (TI 1901*)
18505	AG 0527	Environmental Sciences Technology Applications (TI 1902*)
18505	AG 0528	Advanced Environmental Sciences Technology Applications (TI 1903*)
18101	AG 0530	Zoology/Animal Science
18105	AG 0532	Zoology/Science of Animal Nutrition
18105	AG 0534	Zoology/Science of Animal Reproduction
18501	AG 0536	Zoology/Fish and Wildlife Science
18102	AG 0538	Small Animal Care
18308	AG 0540	Agricultural Biotechnology
10305	AG 0550	Food Science
18306	AG 0560	Aquaculture Science
18104	AG 0570	Equine Science
18104	AG 0572	Advanced Equine Science
18105	AG 0590	Veterinary Science
18201	AG 0660	Agricultural Business and Economics
18997	AG 9800	Occupational and Career Experience
18997	AG 9900	Cooperative Education

NOTE: FFA (Idaho FFA Association and National FFA Organization) and SAE (Supervised Agricultural Experience) programs should be an integral part of all Agriculture and Natural Resources courses and programs of study. A complete sequence of courses is a minimum of six (6) credits in a pathway.

***Courses cross-coded to other program areas can be taught by teachers holding either endorsement.**

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/Activities
None	AC 0019	Other Professional-Technical Courses

AGRICULTURAL SCIENCE AND TECHNOLOGY PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a **senior** student who, as either a junior or senior, has taken a capstone course.

Gateway Courses (recommended as prerequisites to all pathways)

AG 0110 Introduction to Agricultural Education

AG 0120 Introduction to the Agricultural Industry

Animal Systems Pathway

AG 0140 Intro to the Livestock Industry

AG 0310 Applied Livestock Management

*AG 0350 Forestry and Wildlife Management

*AG 0530 Zoology /Animal Science

AG 0532 Zoology/Science of Animal Nutrition

AG 0534 Zoology/Science of Animal Reproduction

*AG 0536 Zoology/Fish and Wildlife Science

*AG 0538 Small Animal Care

AG 0540 Agricultural Biotechnology

AG 0560 Aquaculture Science

AG 0570 Equine Science

*AG 0572 Advanced Equine Science

*AG 0590 Veterinary Science

Food Products and Processing Pathway

AG 0140 Intro to the Livestock Industry

AG 0150 Intro to the Plant Industry

AG 0310 Applied Livestock Management

AG 0320 Applied Crop Management

AG 0525 Ecology/Environmental Science

AG 0526 Intro to Environmental Science Technology

AG 0540 Agricultural Biotechnology

*AG 0550 Food Science

Natural Resources Systems

AG 0140 Intro to the Livestock Industry

AG 0150 Intro to the Plant Industry

*AG 0350 Forestry and Wildlife Management

*AG 0510 Botany/Plant and Soil Science

AG 0512 Botany/Science of Plant Growth and Development

AG 0516 Botany/Forestry Science

*AG 0517 Botany/Advanced Forestry Science

AG 0518 Botany/Range Science

AG 0520 Ecology/Natural Resource Science

AG 0525 Ecology/Environmental Science

AG 0526 Intro to Environmental Science Technology

*AG 0527 Environmental Sciences Technology Applications

*AG 0528 Adv. Environmental Sciences Tech. Applications

*AG 0536 Zoology/Fish and Wildlife Science

Power, Structural and Technical Systems Pathway

AG 0130 Introduction to Ag Mechanics

AG 0210 Agricultural Welding

AG 0211 Advanced Agricultural Welding

AG 0220 Agricultural Power Technology

AG 0221 Small Gasoline Engines

*AG 0222 Agricultural Power Technology/Large Engines

AG 0225 Agricultural Systems/Electricity and Hydraulics

AG 0227 Agricultural Machinery

AG 0230 Agricultural Structures

*AG 0240 Agricultural Fabrication

Plant Systems Pathway

AG 0150 Intro to the Plant Industry

AG 0320 Applied Crop Management

AG 0330 Landscape Design

AG 0335 Floral Design and Marketing

*AG 0337 Advanced Floral Design and Marketing

*AG 0340 Applied Greenhouse and Nursery Management

*AG 0510 Botany/Plant and Soil Science

AG 0512 Botany/Science of Plant Growth and Development

*AG 0514 Botany/Horticulture Plant Science

AG 0516 Botany/Forestry Science

*AG 0517 Botany/Advanced Forestry Science

AG 0518 Botany/Range Science

AG 0540 Agricultural Biotechnology

Agribusiness Systems Pathway

AG 0140 Intro to the Livestock Industry

AG 0150 Intro to the Plant Industry

AG 0310 Applied Livestock Management

AG 0320 Applied Crop Management

AG 0330 Landscape Design

*AG 0350 Forestry and Wildlife Management

*AG 0460 Agribusiness Management and Marketing

AG 0470 Agricultural Sales

*AG 0660 Agricultural Business and Economics

Environmental Service Systems Pathway

AG 0140 Intro to the Livestock Industry

AG 0150 Intro to the Plant Industry

AG 0310 Applied Livestock Management

AG 0320 Applied Crop Management

*AG 0350 Forestry and Wildlife Management

AG 0510 Botany/Plant and Soil Science

AG 0512 Botany/Science of Plant Growth and Development

AG 0516 Botany/Forestry Science

*AG 0517 Botany/Advanced Forestry Science

AG 0518 Botany/Range Science

AG 0520 Ecology/Natural Resource Science

AG 0525 Ecology/Environmental Science

AG 0526 Intro to Environmental Science Technology

*AG 0527 Environmental Sciences Technology Applications

*AG 0528 Adv. Environmental Sciences Tech. Applications

Courses Recommended for ALL pathways

AG 0410 Personal Skill Development

AG 0470 Agricultural Sales

*AG 0660 Agricultural Business and Economics

AG 9800 Occupational and Career Experience

AG 9900 Cooperative Education

*Capstone courses for the sequence option - Capstone courses are those in which the Occupational Competency Attainment will be measured. Capstone courses will vary among programs, but may include any course above the 100 series. The content of capstone courses will be of an advanced nature. *Please note: courses MAY be present in MORE THAN ONE pathway.*

AGRICULTURAL SCIENCE AND TECHNOLOGY

AG 0110 IBED 18001 <i>7th & 8th IBED 68001</i>	INTRODUCTION TO AGRICULTURAL EDUCATION Semester/Trimester	
		A basic introductory course designed to introduce beginning students to Agricultural Education. This course includes agricultural career development, leadership, communications, and personal finance.
AG 0120 IBED 18002	INTRODUCTION TO THE AGRICULTURAL INDUSTRY Semester/Trimester	
		A basic applied course designed to enhance students' perceptions of agriculture, its applications, and career opportunities.
AG 0130 IBED 18401	INTRODUCTION TO AGRICULTURAL MECHANICS Semester/Trimester	
		A course designed to familiarize the student with the basic mechanical theory and skills. Students will develop skills in the areas of Carpentry, Electricity, Plumbing, Fencing, Painting, Metal Working, and Welding processes. Emphasis will be placed on safety and proper use of tools and equipment.
AG 0140 IBED 18101	INTRODUCTION TO THE LIVESTOCK INDUSTRY Semester/Trimester	
		A course that includes principles of evaluation and selection of beef, swine, sheep, horse and dairy animals.
AG 0150 IBED 18051	INTRODUCTION TO THE AGRICULTURAL PLANT INDUSTRY Semester/Trimester	
		A course designed to examine soil and plant relationships that affect the production of food and fiber. Topics include soils, irrigation, land judging, plants, crop and weed identification, diseases, insects and chemicals.
AG 0210 IBED 18404	AGRICULTURAL WELDING Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
		A course designed to develop skills in Arc and Oxy-Acetylene welding and the processes that deal with the joining of metal for the agricultural industry.
AG 0211 IBED 18404	ADVANCED AGRICULTURAL WELDING Semester/Trimester	Prerequisite: Agricultural Welding
		A course designed to reinforce foundational process skills in Arc and Oxy-Acetylene welding as well as implement advanced fabrication and manufacturing technology practices.
AG 0220 IBED 18402	AGRICULTURAL POWER TECHNOLOGY Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
		A course designed to develop skills in selection, operation and maintenance of small air-cooled engines, multi-cylinder engines, hydraulics, electric motors, and agricultural machinery and tractors.
AG 0221 IBED 20110	SMALL GASOLINE ENGINES Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
		A course designed to develop skills in selection, operation, and maintenance of small air-cooled engines.
AG 0222 IBED 18402	AGRICULTURAL POWER TECHNOLOGY/LARGE ENGINES Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
		A course designed to develop skills in selection, operation and maintenance of multi-cylinder engines, hydraulics, electric motors, and agricultural machinery and tractors.
AG 0225	AGRICULTURAL SYSTEMS/ELECTRICITY AND HYDRAULIC	

IBED 18402	Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
A course designed to develop skills in operation of tools and equipment, wiring, controls, electric motors, and hydraulics.		
AG 0227 IBED 18402	AGRICULTURAL MACHINERY Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
A course designed to develop skills in selection, operation, maintenance and management of agricultural machinery.		
AG 0230 IBED 18403	AGRICULTURAL STRUCTURES Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics
A course preparing students to maintain, evaluate, design, and build agriculture structures using approved construction techniques.		
AG 0240 IBED 18405	AGRICULTURAL FABRICATION Semester/Trimester	Prerequisite: Intro to Agricultural Mechanics/Agricultural Welding
A course to develop skills in metal equipment assembly and joining processes.		
AG 0310 IBED 18103	APPLIED LIVESTOCK MANAGEMENT Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Livestock Industry
A course that includes principles of animal production and management. Topics include health, evaluation, selection, feeding, and management.		
AG 0320 IBED 18051	APPLIED CROP MANAGEMENT Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry
A course that prepares students to operate enterprises concerned with the production of various field crops.		
AG 0330 IBED 18056	LANDSCAPE DESIGN Semester/Trimester	
A course that prepares students to design, construct, and maintain planted areas and devices for the beautification of home grounds and other areas of human habitation and recreation.		
AG 0335 IBED 18056	FLORAL DESIGN AND MARKETING Semester/Trimester	
A course designed to develop skills in floriculture and the techniques used to develop and complete a variety of retail items normally sold in a retail florist business. The skills learned are necessary to gain and maintain employment in the retail florist industry.		
AG 0337 IBED 18056	ADVANCED FLORAL DESIGN AND MARKETING Semester/Trimester	Prerequisite: Floral Design and Marketing
A course designed to enhance skills in floriculture and the techniques used to develop and complete a variety of retail items normally sold in a retail florist business and expand to include specialty materials for weddings, funerals, and similar special occasions. Business and inventory skills and well as job shadowing components will be required. The skills learned are necessary to gain and maintain employment in the retail florist industry.		
AG 0340	APPLIED GREENHOUSE AND NURSERY MANAGEMENT	

IBED 18056 Semester/Trimester Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course designed to prepare students in greenhouse and nursery operation and management.

AG 0350 FORESTRY AND WILDLIFE MANAGEMENT
IBED 18501 Semester/Trimester

A course designed to examine the importance of forestry, wildlife, and outdoor recreation with emphasis on efficient use of natural resources.

AG 0410 PERSONAL SKILL DEVELOPMENT
IBED 18203 Semester/Trimester

A comprehensive course in developing agricultural leadership, citizenship, and cooperation. It includes topics in personal development, employee/employer relations, and group and individual interpersonal communications skills.

AG 0460 AGRIBUSINESS MANAGEMENT AND MARKETING
IBED 18201 Semester/Trimester

A course designed to introduce the student to agribusiness management in the free enterprise system. It includes a study of economic principles, budgeting, record keeping, finance, risk management, business law, marketing and careers in agribusiness.

AG 0470 AGRICULTURAL SALES
IBED 12202 Semester/Trimester

A course designed to develop skills in preparing, developing, and practicing agribusiness sales competencies. The skills learned are necessary to gain and maintain employment in the wholesale/retail agriculture sales field.

AG 0510 BOTANY/PLANT AND SOIL SCIENCE
IBED 18051 Semester/Trimester

Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course designed to examine soil and plant relationships that affect the production of food and fiber. Topics include soils, plants, plant ID, and plant pests.

AG 0512 BOTANY/SCIENCE OF PLANT GROWTH AND DEVELOPMENT
IBED 18051 Semester/Trimester

Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course designed to examine the importance of plant cell structure, functions of cells, plant processes, nonvascular plants, vascular plants, roots, stems, leaves, flowers and reproduction of plants.

AG 0514 BOTANY/HORTICULTURE PLANT SCIENCE
IBED 18502 Semester/Trimester

Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course that prepares students to produce greenhouse/nursery plants and to maintain plant growth and propagation structures.

AG 0516 BOTANY/FORESTRY SCIENCE
IBED 18502 Semester/Trimester

Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course designed to introduce students to the biological, environmental and ecological concepts encountered in a temporal forest environment.

AG 0517 BOTANY/ADVANCED FORESTRY SCIENCE
 IBED 18503 Semester/Trimester Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

This course is a companion course to AG 0516 Botany/Forestry Science. It provides an advanced level of instruction in the biological, environmental and ecological concepts that are encountered in a temporal forest environment. AG 0516 should be taken as a prerequisite course to provide fundamental instruction in the forestry sequence.

AG 0518 BOTANY/RANGE SCIENCE
 IBED 18504 Semester/Trimester Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Plant Industry

A course designed to acquaint students with principles of conservation, natural resources, ecology, and range science.

AG 0520 ECOLOGY/NATURAL RESOURCE SCIENCE
 IBED 18504 Semester/Trimester Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry

A course designed to teach the concepts of conservation, natural resources, ecology, and fish/wildlife science.

AG 0525 ECOLOGY/ENVIRONMENTAL SCIENCE
 IBED 18504 Semester/Trimester Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry

A course that provides science instruction and practical experiences in environmental science including agricultural/industrial chemical issues, habitat preservation/restoration, remediation of damaged resources, conservation practices and current environmental issues.

AG 0526 (TI 1901) INTRO TO ENVIRONMENTAL SCIENCE TECHNOLOGY
 IBED 18505 Semester/Trimester

A course designed to provide students with team work, critical thinking, problem solving, diagnostics and creative designing to industry standards. Students will be given a variety of skills development situations in which they will be required to solve problems relating to water, ground and air contaminations or abnormalities. A strong science background is suggested prior to enrollment. Basic instrument and tool use will be provided, along with computer/instrumentation applications and applied physical and chemical science laboratory exercises.

AG 0527 (TI 1902) ENVIRONMENTAL SCIENCES TECHNOLOGY APPLICATIONS
 IBED 18505 Two Semesters/Three Trimesters

This course is a full year in length and introduces students to the multitude of scenarios of hazardous material conditions which exist in the nation's waterways, soil, and air. Air and water pollution examples will be studied and models of controlling pollution or contamination will be examined.

AG 0528 (TI 1903) ADVANCED ENVIRONMENTAL SCIENCES APPLICATIONS/INTERNSHIP
 IBED 18505 Multiple Block/Full Year

Students will be involved in examining and studying existing pollution and contamination solutions in area industries. Single family, community, and industry applications of models to prevent contamination and pollution of soil, water, and air will be presented to students. On-site industry and field experiences will be an integral component of this course. This course should be offered as a multiple period block for a full year.

AG 0530 ZOOLOGY/ANIMAL SCIENCE

IBED 18101	Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course designed to develop knowledge and skills pertaining to nutrition, reproduction, diseases, breeding, genetics, anatomy, and physiology in livestock.		
AG 0532 IBED 18105	ZOOLOGY/SCIENCE OF ANIMAL NUTRITION Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course of study designed to provide learning experiences for students in the areas of animal nutrition and physiology.		
AG 0534 IBED 18105	ZOOLOGY/SCIENCE OF ANIMAL REPRODUCTION Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course of study which provides learning experiences in the subject matter relating to anatomy and physiology of animal reproduction.		
AG 0536 IBED 18501	ZOOLOGY/FISH AND WILDLIFE SCIENCE Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course designed to examine the importance of fish and wildlife science, outdoor recreation and natural resources.		
AG 538 IBED 18102	SMALL ANIMAL CARE Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course the focuses on the care and management of small animals. Animal nutrition, health, behavior, reproduction and breeding, anatomy, physiology, facilities, handling and training, and grooming are typical areas of study.		
AG 0540 IBED 18308	AGRICULTURAL BIOTECHNOLOGY Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry
A course designed to explore a variety of technology applications that are used to modify living organisms in the areas of plant and animal science, plant and animal health, environmental science, and food science.		
AG 0550 IBED 18305	FOOD SCIENCE Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry
An applied science course in the science of food production, processing, transporting, storage, toxicology and quality control. Students apply the scientific method of discovery as they study the biological and chemical basis of food preparation, processing and preservation. Students develop writing and critical thinking skills through data collection, laboratory procedures, science-based experimentation, and written lab reports. This course focuses primarily on the food processing industry and may be used as a companion course to the Family and Consumer Sciences course in Food Science.		
AG 0560	AQUACULTURE SCIENCE	

IBED 18306	Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course that provides science instruction and practical applications of science principles in the context of fish production. It focuses on such issues as water quality, nutrition, health, and aquatic environments and the plants and animals that live in water. Opportunities are provided for laboratory experiences related to aquaculture.		
AG 0570 IBED 18104	EQUINE SCIENCE Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry or Intro to Animal Industry
A course of instruction designed to provide science and practical management instruction in the care of horses. The applied science curriculum component has a focus on physiology, anatomy, nutrition, genetics, health and reproduction.		
AG 0572 IBED 18104	ADVANCED EQUINE SCIENCE Semester/Trimester	Prerequisite: Equine Science
A course of designed to focus on the uniqueness of the equine, focusing on the species specific need in areas of physiology, anatomy, nutrition, genetics, health, reproduction, diseases, breeding, as well as the anatomy and physiology of equine reproduction.		
AG 0590 IBED 18105	VETERINARY SCIENCE Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry and AND any 500 level Zoology or Animal Science course
A course of designed to impart information about the causes, diagnosis, and treatment of diseases and injuries in animals, typically emphasizing domestic and farm animals. Business management and interpersonal skills required for a successful veterinary practice will also be emphasized.		
AG 0660 IBED 18201	AGRICULTURAL BUSINESS AND ECONOMICS Semester/Trimester	Prerequisite: Intro to Agricultural Education or Intro to Agricultural Industry
A course designed to introduce the student to agribusiness management in the free enterprise system. It includes a study of economic principles, budgeting, record keeping, finance, decision making, risk management, business law, marketing and careers in agribusiness.		
AG 9800 IBED 18997	OCCUPATIONAL AND CAREER EXPERIENCE Semester/Trimester	Prerequisites: Prior successful completion of a minimum of three semesters of agriculture instruction Juniors and Seniors ONLY
A community based work experience activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objectives of the student. The experiences must be supervised and monitored by the teacher. (Note: This course must be approved on an Individual program basis by the State Division.)		
AG 9900 IBED 18997	COOPERATIVE EDUCATION Semester/Trimester	Prerequisites: Prior successful completion of a minimum of three semesters of agriculture instruction Juniors and Seniors ONLY
Community based instruction organized and planned to provide specialized skills unique to an occupation or industry. Students are placed in businesses which provide paid on-the-job experience which is related to the student's primary area of study. The experience must be supervised by the teacher and students must have a training plan.		

BUSINESS, MANAGEMENT & MARKETING EDUCATION
PROFESSIONAL-TECHNICAL APPROVED COURSES
Grades 9 -12

IBEDS		
12001	BE 0100	Business Essentials (ME 0100*)
12005	BE 0110	Input Technologies I
12005	BE 0120	Input Technologies II
12052	BE 0150	Business Management (ME 0150*)
12054	BE 0151	Business Law / Ethics Applications
12107	BE 0153	Banking & Finance Services (ME 0153*)
10001	BE 0160	Computer Technology I
10001	BE 0170	Computer Technology II
12009	BE 0175	Business Communications (ME 0175*)
02154	BE 0180	Business Math
12103	BE 0190	Personal Business Finance
12105	BE 0200	Marketing Economics (Applied Economics) (ME 0200*)
10156	BE 0250	Computer Programming & Software Development I
10156	BE 0260	Computer Programming & Software Development II
10157	BE 0261	Computer Science—Database Design and Programming
10001	BE 0270	Introduction to Information Technology
10203	BE 0273	Introduction to Interactive Media
10298	BE 0274	Technology Assistant Internship
10252	BE 0280	Computer Design & Networking
10252	BE 0290	Advanced Networking
12164	BE 0300	Principles of Marketing (ME 0300 ₁)
10005	BE 0310	Business Computer Applications I
11152	BE 0314	Publishing I
11055	BE 0316	Interactive Media — Video I
10202	BE 0317	Interactive Media — Graphics I
10201	BE 0318	Web Design I — Introduction
10005	BE 0320	Business Computer Applications II
11152	BE 0324	Publishing II
11055	BE0326	Interactive Media — Video II
10202	BE 0327	Interactive Media — Graphics II
10201	BE 0328	Web Design II — Website Authoring Tools
10005	BE 0330	Business Computer Applications III
11152	BE 0334	Publishing III
10201	BE 0338	Web Design III
12056	BE 0340	Introduction to International Business / Marketing (ME 0340*)
12056	BE 0341	International Business / Marketing I (ME 0341*)
12056	BE 0342	International Business / Marketing II (ME 0342*)
12153	BE 0348	E-Commerce (ME 0348*)
12106	BE 0350	Principles of Insurance
12104	BE 0410	Accounting I
12104	BE 0420	Accounting II
12104	BE 0421	Computerized Accounting
12105	BE 0425	Principles of World Finance
12053	BE 0600	Business Ownership / Entrepreneurship (ME 0600*)
12002	BE 0610	Office Technologies
12998	BE 0640	Administrative Assistant Internship
12049	BE 0650	Business Administration
12998	BE 9800	Business Occupational and Career Experience
12998	BE 9900	Business Cooperative Education

*Courses cross-coded to other program areas can be taught by teachers holding either endorsement.

BUSINESS, MANAGEMENT & MARKETING EDUCATION
PROFESSIONAL-TECHNICAL APPROVED COURSES
Grades 9 -12

IBEDS

12001	ME 0100	Business Essentials (BE 0100*)
12052	ME 0150	Business Management (BE 0150*)
12107	ME 0153	Banking & Finance Services (BE 0153*)
12199	ME 0175	Marketing Communications (BE 0175*)
12105	ME 0200	Marketing Economics (Applied) (BE 0200*)
12152	ME 0225	Marketing Research
16001	ME 0250	Hospitality / Tourism (OF 0560*)
12164	ME 0300	Principles of Marketing (BE 0300*)
12056	ME 0340	Introduction to International Business / Marketing (BE 0340*)
12056	ME 0341	International Business / Marketing I (BE 0341*)
12056	ME 0342	International Business / Marketing II (BE 0342*)
12162	ME 0348	E-Commerce (BE 0348*)
12161	ME 0350	Retail Merchandising
12153	ME 0355	Fashion Merchandising & Marketing
12165	ME 0400	Principles of Promotion
12166	ME 0500	Principles of Management
12163	ME 0550	Sports & Entertainment Marketing
12053	ME 0600	Business Ownership / Entrepreneurship (BE 0600*)
12202	ME 0700	Marketing Education Lab
12198	ME 9800	Marketing Work Site Experience
12198	ME 9900	Marketing Cooperative Education

ACADEMY OF FINANCE

(Codes for approved National Academy of Finance programs only)

12101	BT 0100	Introduction to Financial Services I (MT 0100*)
22151	BT 0101	Strategies for Success (MT 0101*)
12102	BT 0102	Banking & Credit (MT 0102*)
12103	BT 0103	Financial Planning / Financial Operations (MT 0103*)
12056	BT 0104	International Finance (MT 0104*)
12105	BT 0105	Economics & the World of Finance (MT 0105*)
12107	BT 0106	Securities (MT 0106*)
12106	BT 0107	Insurance (MT 0107*)

ACADEMY OF TRAVEL AND TOURISM

(Codes for approved National Academy of Travel and Tourism programs only)

16151	MT 0200	Introduction to Travel & Tourism
16155	MT 0201	English for Travel & Tourism
16153	MT 0202	Geography for Travel & Tourism
16152	MT 0203	Travel & Tourism II: Travel as a Business

OTHER COURSES AND ASSIGNMENTS

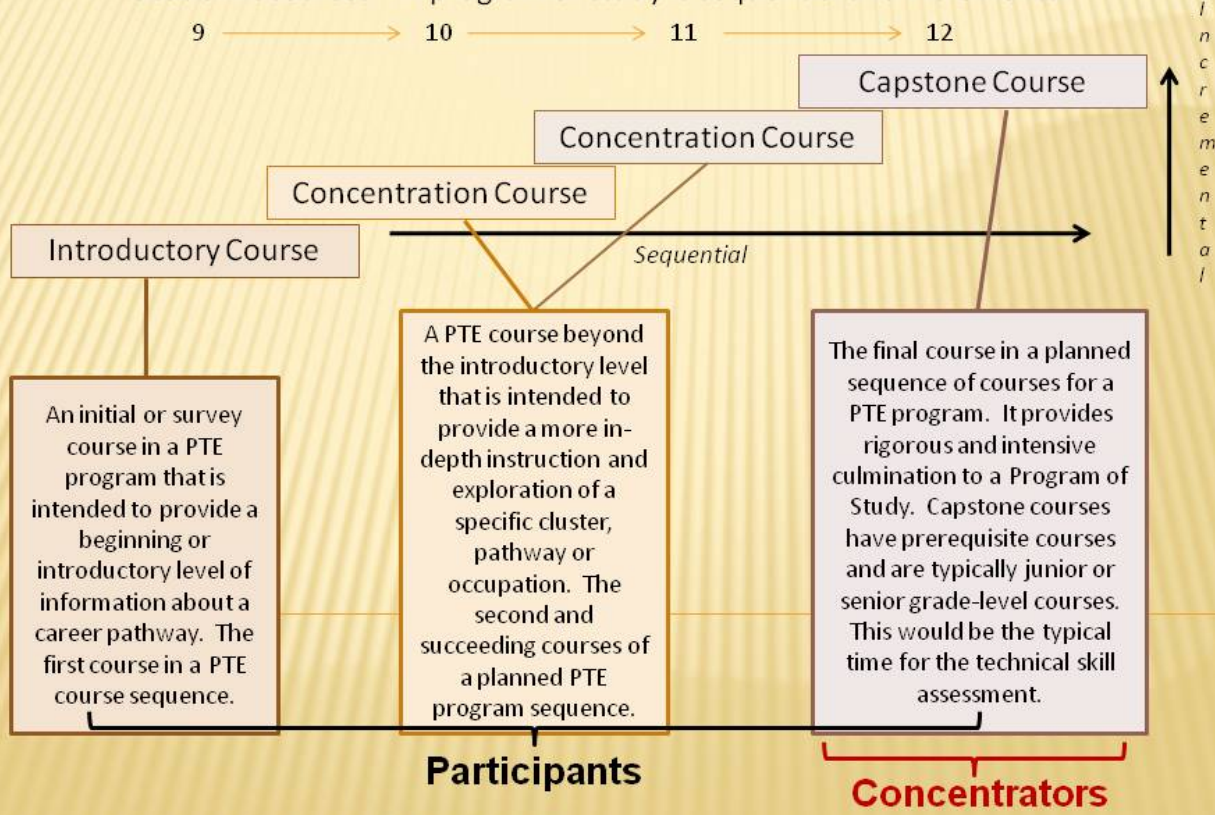
22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other Courses / Activities
None	AC 0019	Other Professional-Technical Courses

Note: Business, Management & Marketing courses which are required for graduation will be funded on a pro-rated basis. Include a list of required business courses in the comments section of the 10D form.

***Courses cross-coded to other program areas can be taught by teachers holding either endorsement.**

WHAT IS A STATE APPROVED PROGRAM OF STUDY

A coherent and planned sequence of rigorous professional technical and academic courses. A program of study is sequential and incremental.



Select a minimum of four semester/trimester courses, equivalent to two years, within the single pathway that supports the approved Program of Study (POS). Courses should include at least one introductory, two concentration, and one capstone courses. Capstone courses are indicated with an asterisk (*) and are highlighted.

BUSINESS, MANAGEMENT & MARKETING EDUCATION PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a senior student who, as either a junior or senior, has taken a capstone course.

Possible business class combinations are numerous and vary across the state. The following sequences are provided to help you identify completers. **Please note: BE 0022 Introduction to Keyboarding or the equivalent (one semester) is a prerequisite to all BE course options.**

BE/ME 0100 Business Essentials is an appropriate entry-level course for all pathways in Business, Management & Marketing Education.

BUSINESS MANAGEMENT & ADMINISTRATION CAREER CLUSTER	
<u>General Management Pathway</u>	<u>Administrative Support Pathway</u>
BE 0110 Input Technologies I	BE 0110 Input Technologies I
BE 0150 Business Management	BE 0120 Input Technologies II
BE 0151 Business Law / Ethics Applications	BE 0150 Business Management
BE 0175 Business Communications	BE 0175 Business Communications
BE 0190 Personal Business Finance	BE 0190 Personal Business Finance
BE 0200 Marketing Economics	BE 0200 Marketing Economics
BE 0300 Principles of Marketing	BE 0310 Business Computer Applications I
BE 0310 Business Computer Applications I	BE 0314 Publishing I
BE 0320 Business Computer Applications II	BE 0324 Publishing II
BE 0340 Intro to International Business / Marketing	* BE 0334 Publishing III
BE 0341 International Business / Marketing I	BE 0320 Business Computer Applications II
* BE 0342 International Business / Marketing II	* BE 0330 Business Computer Applications III
BE 0410 Accounting I	* BE 0610 Office Technologies
* BE 0600 Business Ownership / Entrepreneurship	* BE 0640 Administrative Assistant Internship
* BE 0650 Business Administration	* BE 0650 Business Administration
* BE 9900 Business Cooperative Education	* BE 9800 Business Occupational & Career Experience
	* BE 9900 Business Cooperative Education
FINANCE CAREER CLUSTER	
<u>Banking Services, Business Finance, Securities & Investments Pathway</u>	<u>Insurance Pathway</u>
BE 0150 Business Management	BE 0150 Business Management
BE 0151 Business Law / Ethics Applications	BE 0153 Banking & Finance Services
BE 0153 Banking & Finance Services	BE 0175 Business Communications
BE 0175 Business Communications	BE 0180 Business Math
BE 0190 Personal Business Finance	BE 0190 Personal Business Finance
BE 0200 Marketing Economics	BE 0200 Marketing Economics
BE 0310 Business Computer Applications I	BE 0310 Business Computer Applications I
BE 0320 Business Computer Applications II	BE 0320 Business Computer Applications II
BE 0410 Accounting I	BE 0350 Principles of Insurance
* BE 0420 Accounting II	BE 0410 Accounting I
* BE 0425 Principles of World Finance	BE 9800 Business Occupational & Career Experience
* BE 9800 Business Occupational & Career Experience	BE 9900 Business Cooperative Education
* BE 9900 Business Cooperative Education	

<u>Accounting Pathway</u>	<u>Academy of Finance</u>
BE 0150 Business Management BE 0175 Business Communications BE 0180 Business Math BE 0190 Personal Business Finance BE 0200 Marketing Economics BE 0410 Accounting I * BE 0420 Accounting II * BE 0421 Computerized Accounting * BE 0650 Business Administration * BE 9800 Business Occupational & Career Experience * BE 9900 Business Cooperative Education	BT 0100 Introduction to Financial Services I BT 0101 Strategies for Success BT 0102 Banking and Credit BT 0103 Financial Planning / Financial Operations BT 0104 International Finance BT 0105 Economics and the World of Finance BT 0106 Securities BT 0107 Insurance (Codes for <u>approved</u> National Academy of Finance programs only)

MARKETING CAREER CLUSTER

<u>Marketing Management Pathway</u>	<u>Professional Sales Pathway</u>
ME 0150 Business Management ME 0175 Marketing Communications ME 0200 Marketing Economics ME 0225 Marketing Research ME 0300 Principles of Marketing BE 0310 Business Computer Applications I BE 0410 Accounting I * ME 0500 Principles of Management * ME 0600 Business Ownership / Entrepreneurship * BE 0650 Business Administration * ME 9800 Marketing Work Site Experience	ME 0150 Business Management ME 0175 Marketing Communications ME 0200 Marketing Economics ME 0225 Marketing Research ME 0300 Principles of Marketing BE 0310 Business Computer Applications I * ME 0348 E-Commerce * ME 0350 Retail Merchandising * ME 0400 Principles of Promotion * ME 0500 Principles of Management * ME 9900 Marketing Cooperative Education
<u>Merchandising Pathway</u>	<u>Marketing Communications Pathway</u>
ME 0150 Business Management ME 0175 Marketing Communications ME 0200 Marketing Economics ME 0225 Marketing Research ME 0300 Principles of Marketing BE 0310 Business Computer Applications I * ME 0350 Retail Merchandising * ME 0355 Fashion Merchandising & Marketing * ME 0400 Principles of Promotion * ME 9900 Marketing Cooperative Education	ME 0150 Business Management ME 0175 Marketing Communications ME 0200 Marketing Economics ME 0225 Marketing Research ME 0300 Principles of Marketing BE 0310 Business Computer Applications I ME 0340 Intro to International Business / Marketing ME 0341 International Business / Marketing I * ME 0348 E-Commerce * ME 0400 Principles of Promotion * ME 9800 Marketing Work Site Experience
<u>Marketing Research Pathway</u>	
ME 0150 Business Management ME 0175 Marketing Communications ME 0200 Marketing Economics ME 0225 Marketing Research ME 0300 Principles of Marketing BE 0310 Business Computer Applications I * ME 0348 E-Commerce * ME 0400 Principles of Promotion * ME 0500 Principles of Management * ME 0700 Marketing Education Lab * ME 9800 Marketing Work Site Experience	

INFORMATION TECHNOLOGY CAREER CLUSTER

<u>Programming / Software Engineering Pathway</u>	<u>Network Systems Pathway</u>
BE 0160 Computer Technology I BE 0170 Computer Technology II BE 0175 Business Communications BE 0180 Business Math BE 0190 Personal Business Finance BE 0200 Marketing Economics BE 0250 Computer Programming & Software Dev. I * BE 0260 Computer Programming & Software Dev. II * BE 0261 Computer Science — Database Design and Programming BE 0310 Business Computer Applications I * BE 9900 Business Cooperative Education	BE 0160 Computer Technology I BE 0170 Computer Technology II BE 0175 Business Communications BE 0180 Business Math BE 0190 Personal Business Finance BE 0200 Marketing Economics BE 0270 Introduction to Information Technology * BE 0274 Technology Assistant Internship BE 0280 Computer Design and Networking * BE 0290 Advanced Networking BE 0310 Business Computer Applications I * BE 9900 Business Cooperative Education
<u>Web & Digital Communications</u>	
BE 0160 Computer Technology I BE 0175 Business Communications BE 0180 Business Math BE 0190 Personal Business Finance BE 0200 Marketing Economics BE 0273 Introduction to Interactive Media BE 0310 Business Computer Applications I BE 0273 Introduction to Interactive Media BE 0316 Interactive Media: Video I * BE 0326 Interactive Media: Video II BE 0317 Interactive Media: Graphics I * BE 0327 Interactive Media: Graphics II BE 0318 Web Design I — Introduction BE 0328 Web Design II — Web Site Authoring Tools * BE 0338 Web Design III * BE 9900 Business Cooperative Education	

HOSPITALITY & TOURISM CAREER CLUSTER

<u>Travel & Tourism Pathway</u>	<u>Academy of Travel & Tourism</u>
ME 0150 Business Management ME 0200 Marketing Economics ME 0250 Hospitality / Tourism ME 0300 Principles of Marketing BE 0310 Business Computer Applications I ME 0340 Intro to International Business / Marketing * ME 0400 Principles of Promotion * ME 0500 Principles of Management * ME 0700 Marketing Education Lab * ME 9800 Marketing Work Site Experience * ME 9900 Marketing Cooperative Education	MT 0200 Introduction to Travel & Tourism MT 0201 English for Travel & Tourism MT 0202 Geography for Travel & Tourism MT 0203 Travel & Tourism II: Travel as a Business (Codes for <u>approved</u> National Academy of Travel & Tourism programs only)
<u>Lodging Pathway</u>	<u>Restaurant & Food Beverage Services Pathway</u>
ME 0150 Business Management ME 0200 Marketing Economics ME 0250 Hospitality / Tourism ME 0300 Principles of Marketing BE 0310 Business Computer Applications I ME 0340 Intro to International Business / Marketing * ME 0400 Principles of Promotion * ME 0500 Principles of Management * ME 0700 Marketing Education Lab * ME 9800 Marketing Work Site Experience * ME 9900 Marketing Cooperative Education	ME 0150 Business Management ME 0200 Marketing Economics ME 0250 Hospitality / Tourism ME 0300 Principles of Marketing BE 0310 Business Computer Applications I ME 0340 Intro to International Business / Marketing * ME 0400 Principles of Promotion * ME 0500 Principles of Management * OF 0540 Food Production, Mgmt. & Service * ME 0700 Marketing Education Lab * ME 9800 Marketing Work Site Experience * ME 9900 Marketing Cooperative Education
<u>Recreation, Amusement & Attractions Pathway</u>	
ME 0150 Business Management ME 0200 Marketing Economics ME 0250 Hospitality / Tourism ME 0300 Principles of Marketing BE 0310 Business Computer Applications I ME 0340 Intro to International Business / Marketing * ME 0400 Principles of Promotion * ME 0500 Principles of Management * ME 0550 Sports & Entertainment Marketing * ME 0700 Marketing Education Lab * ME 9800 Marketing Work Site Experience * ME 9900 Marketing Cooperative Education	

* Capstone courses for the sequence option – Capstone courses are courses where the Occupational Competency Attainment will be measured. The content of capstone courses is advanced, typically junior or senior grade-level. A capstone course must be provided by the Business, Management & Marketing Program for continued approval. Please note that this is only a sample of possible sequences. All of the sequences require a student to successfully complete at least three semesters with a fourth semester required for many. Students should receive basic content instruction and achieve keyboarding skills equivalent to 50 WPM.

- BE 0151 BUSINESS LAW/ETHICS APPLICATIONS
IBED 12054 Semester/Trimester Prerequisite: BE 0022
- A course designed to provide students with an overview of civil and criminal law, as it relates to business principles and practices. Topics include ethics, an overview of the legal system, court procedures, criminal/civil justice systems, oral and written contracts, and consumer protection.
- BE 0153 (ME 0153) BANKING AND FINANCE SERVICES
IBED 12107 Semester/Trimester Prerequisite: BE 0190
- A course designed to examine the principles and practices of financial institutions. Students will demonstrate skills and knowledge in money management, personal finance, investment and stock market strategies, institutions' operations and procedures, the Federal Reserve System, and credit functions and operations.
- BE 0160 COMPUTER TECHNOLOGY I
IBED 10001 Semester/Trimester Prerequisite: None
- A course designed to focus on the study of computer systems and application software. The influences of computers on societal issues are presented especially in the areas of security, privacy, computer crime and viruses. A broad array of computer applications are surveyed in context to how they help solve personal, business, and societal problems.
- BE 0170 COMPUTER TECHNOLOGY II
IBED 10001 Semester/Trimester Prerequisite: BE 0160
- A course designed to focus on the study of computer hardware and operating systems. This course elaborates on skills and issues included in Computer Technology I.
- BE 0175 (ME 0175) BUSINESS COMMUNICATIONS
IBED 12009 Semester/Trimester/Year Prerequisite: None
- A course designed to provide essential skills and knowledge required in workplace and business settings. The course content addresses written and oral communication and competencies that include writing, speaking, listening, and interpreting. Technology is applied as an integral aspect of business communication.
- BE 0180 BUSINESS MATH
IBED 02154 Semester/Trimester/Year Prerequisite: None
- A course designed to provide students with an understanding of essential business mathematical concepts. Basic math and algebraic operations as well as statistical procedures are used to analyze and solve realistic business and money management problems.
- BE 0190 PERSONAL BUSINESS FINANCE
IBED 12103 Semester/Trimester/Year Prerequisite: None
- A course designed to provide students personal finance skills and knowledge; to include goal setting, budgeting, saving, investing, borrowing, insuring, identity protection and retirement planning.
- BE 0200 (ME 0200) MARKETING ECONOMICS
IBED 12105 (Applied Economics on computers may meet graduation requirements.)
Semester/Trimester Prerequisite: BE 0022
- A course designed to provide students an understanding of economic theory and principles. Theories of the economic free enterprise system, with a focus on decision-making and its relationship to how people produce, distribute, and consumer goods and services are examined. **Refer to Secondary School Courses of Study.**
- BE 0250 COMPUTER PROGRAMMING AND SOFTWARE DEVELOPMENT I
IBED 10156 Semester/Trimester
- A course designed to introduce students to computer science, programming concepts, and programming. Students will learn how to design, enter, compile, run and debug programs and gain an understanding of how to break up large programming tasks into small, solvable parts to create

effective working programs across a variety of platforms.

BE 0260 COMPUTER PROGRAMMING AND SOFTWARE DEVELOPMENT II
 IBED 10156 Semester/Trimester Prerequisite: BE0250

A course designed to build on the skills and knowledge established in Computer Programming and Software Development I.

BE 0261 COMPUTER SCIENCE — DATABASE DESIGN AND PROGRAMMING
 IBED 10157 Year

This course is an authorized AP College Board course teachers must be authorized to teach the course through the AP College Board. Upon completion of the course, students will be able to pass the AP College Board Exam for Computer Science A or Computer Science AB. For complete details regarding AP Board Approval of the Teacher and the curriculum go to: <http://apcentral.collegeboard.com>.

BE 0270 INTRODUCTION TO INFORMATION TECHNOLOGY
 IBED 10001 Semester/Trimester/Year

A course designed to provide students with an understanding of voice and data communication networks and components necessary for information systems' maintenance. Students will become familiar with hardware and software utilities used to install, upgrade and problem solve various types of operating systems' problems.

BE 0273 INTRODUCTION TO INTERACTIVE MEDIA
 IBED 10203 Semester/Trimester Prerequisite: None

A course designed to introduce students to interactive technologies. Topics include designing, editing, and producing video, audio and graphical elements using digitally-generated or computer-enhanced media.

BE 0274 TECHNOLOGY ASSISTANT INTERNSHIP
 IBED 10298 Year Prerequisite: BE 0270

A course designed to allow students to practice skills learned in the initial levels of the program by performing the duties of an assistant to the system operator of a computer network or technology center. Duties will be performed in conjunction with adults in the school district. Skills to be learned and reinforced would include installing, maintaining and troubleshooting equipment. In addition, the student would be responsible for providing training and in-service on appropriate equipment to all school personnel, develop communication linkages, and serve as system technician.

BE 0280 COMPUTER DESIGN AND NETWORKING
 IBED 10252 Semester/Trimester

A course designed to examine computer design, assembly, and maintenance, as well as develop foundational computer networking competencies; to include a study of appropriate procedures for working with hubs, switches, and routers. Students will learn associated workplace skills including inventory tracking, scheduling, component research and acquisition, and related business procedures.

BE 0290 ADVANCED NETWORKING
 IBED 10252 Semester/Trimester Prerequisite: BE 0280

A course designed for students to develop skills and competencies for the installation and maintenance of computer equipment in the district, community and industry using cable, fiber optics, and wireless communication. Students will connect users to computer systems, keep documentation on network performance and install upgrades when necessary. A personal code of ethics for information use and management will be established.

BE 0300 (ME 0300) PRINCIPLES OF MARKETING
 IBED 12164 Semester/Trimester Prerequisite: None

A course designed to focus on the fundamentals and functions of marketing as they relate to the competitive enterprise system. Marketing theory is presented and applied to business problems,

practices, and the business environment and management systems. (This class must be taught by a Marketing endorsed instructor to be part of the Marketing Program sequence).

BE 0310 **BUSINESS COMPUTER APPLICATIONS I**
IBED 10005 Semester /Trimester/Year Prerequisite: BE 0110

A course designed to introduce students to the use of industry standard computer applications used for solving business problems. Career awareness, employment skills, and contextualized business problems represent the theme of the course. Topics include an introduction to operating systems and file management; the use of word processing software for purposes of creating basic business documents; the use of spreadsheet software for storing data and solving mathematically based problems; and the use of presentation software to support the delivery of effective presentations.

BE 0314 **PUBLISHING I**
IBED 11152 Semester/Trimester/Year Prerequisite: Keyboarding

A course designed to develop proficiencies in the planning, designing, and development of business and promotional documents (newsletters, magazines, advertisements, etc.) using industry standard pagination and graphic design software. Identification of client needs and consideration of the intended audience direct the work students engage in as they combine appropriate text, graphics and design concepts to communicate the desired message effectively. Publishing careers will be examined.

BE 0316 **INTERACTIVE MEDIA: VIDEO I**
IBED 11055 Semester/Trimester

A course designed to provide in-depth knowledge of audio-visual production equipment and processes. Students will be introduced to video editing skills and techniques for planning, designing and developing video. Skills to be obtained are file management, audio and video capturing, adding events to timelines, editing multiple video tracks, transitions, voice over production, and key framing.

BE 0317 **INTERACTIVE MEDIA: GRAPHICS I**
IBED 10202 Semester/Trimester/Year

A course designed to allow students to develop skills in formatting and editing raw visual layouts and illustrations using appropriate print, 3D, and animation software. Skills to be acquired include mapping, lighting, camera techniques, animation planning and storyboard development. Emphasis is placed on preparing materials to web/print industry standards.

BE 0318 **WEB DESIGN I - INTRODUCTION**
IBED 10201 Semester/Trimester Prerequisite: BE 0022 / BE 0120

A course designed to allow students to develop Web pages utilizing HTML, XHTML, CSS, and XML basic web coding. This course is an entry-level course intended as a pre-requisite for advanced Web design courses. This course is designed to provide students with vocabulary and concepts required to develop a Website. Students will be introduced to industry standard Web design software and be ready to advance to Web Design II, where students will use advanced Web authoring tools.

BE 0320 **BUSINESS COMPUTER APPLICATIONS II**
IBED 10005 Semester /Trimester/Year Prerequisite: BE 0310

A course designed to build on the skills and knowledge established in Business Computer Applications I. Information and data management, retrieval, merging, and presentation represent the framework of the course. Topics include an introduction to database applications, the use of word processing software for creating complex business documents and reports, and the use of spreadsheet software for solving mathematically based problems involving business finance.

BE 0324 **PUBLISHING II**
IBED 11152 Semester/Trimester/Year Prerequisite: BE 0314

A course designed to build on the skills acquired in Publishing I. Students plan, design, and develop complex documents and develop enhanced graphics while using journalistic principles and design concepts to communicate the intended message of the publication. Concepts addressing print publication requirements (CMYK, spot colors, bleed, creep, etc.) and Web publication requirements (RGB, font issues, etc.) are studied. Documents will be finalized and ready for commercial printing.

- BE 0326**
IBED 11055 INTERACTIVE MEDIA: VIDEO II
Semester/Trimester Prerequisite: BE 0316
- A course designed to build on the skills and knowledge established in Interactive Media I. Soundtrack creation, multiple camera editing, story line development, and advanced video capturing represent the framework for this course. Skills to be learned include masking, editing, and special FX and DVD authoring. Culminating activities include integrating acquired skills and abilities with school, business or community needs.
- BE 0327**
IBED 10202 INTERACTIVE MEDIA: GRAPHICS II
Semester/Trimester/Year Prerequisite: BE 0317
- A course designed to focus on project-based applications of concepts addressed in Media: Graphics I. The projects may integrate skills with school, business or community needs.
- BE 0328**
IBED 10201 WEB DESIGN II – WEB SITE AUTHORIZING TOOLS
Semester/Trimester Prerequisite: BE 0318
- A course designed to emphasize planning and publishing dynamic, professional web sites using industry standard web design authoring tools. Students will learn to create and incorporate special effects, photographs, icons, quality animations, and other graphics suitable for web deployment. An in-depth application of editing software and advanced coding applications will be the focus of this course.
- BE 0330**
IBED 10005 BUSINESS COMPUTER APPLICATIONS III
Semester /Trimester/Year Prerequisite: BE 0310 & BE 0320
- A course designed to build on the skills and knowledge established in Business Computer Applications II. Solving business problems that require advanced use and integration of productivity applications for data management, data analysis, and information presentation represent the framework of the course. The course includes an examination of career and industry certification opportunities as they relate to the skills and knowledge acquired.
- BE 0334**
IBED 11152 PUBLISHING III
Semester/Trimester/Year Prerequisite: BE 0314 & BE 0324
- A course designed to utilize publishing skills for the creation and publication of a complex publication such as a school yearbook. Planning and design principles are used to analyze and organize information, select and create visuals and develop a design structure. Organizational and professional skills are developed through team projects in which students prioritize project components and present the final product to its intended audience.
- BE 0338**
IBED 10201 WEB DESIGN III
Semester/Trimester Prerequisite: None
- A course designed to integrate knowledge from Web Design I and II to develop e-commerce through incorporation of sales, marketing, and customer interfaces. Students will increase their knowledge of design and application as they focus on the client and database functionality. Students will have the opportunity to explore server side scripts, server application interaction, and increase their skills in dynamic design.
- BE 0340 (ME 0340)** INTRODUCTION TO INTERNATIONAL BUSINESS / MARKETING
IBED 12056 Semester/Trimester Prerequisite: BE 0300 / ME 0300
- A course designed to provide students an introduction to international business and marketing. Topics will include exporting and importing basics, international economics and finance, distribution, laws and regulations, entrepreneurship, trade documentation, and employability skills.
- BE 0341 (ME 0341)** INTERNATIONAL BUSINESS / MARKETING I
BED 12056 Semester/Trimester Prerequisite: BE 0340 / ME 0340
or Instructor Permission
- A course designed to provide students an introduction to international business and marketing. Topics will include exporting and importing basics, international economics and finance, distribution, laws and regulations, entrepreneurship, trade documentation, and employability skills.

- BE 0342 (ME 0342) INTERNATIONAL BUSINESS / MARKETING II**
IBED 12056 Semester/Trimester Prerequisite: BE 0341 / ME 0341
- A course designed to study the rapidly increasing area of international business and marketing. This second semester class covers areas related to our economy as well as other countries' economic and trade systems; proper procedures for linking with international business customers; and valuable aspects of becoming a part of this dynamic growing marketplace.
- BE 0348 (ME 0348) E-COMMERCE**
IBED 12153 Semester/Trimester Prerequisite: BE 0022 / BE 0110
- A course designed to provide students with an understanding of the concepts and skills necessary for conducting e-business. Students will develop an understanding of the economic, social, legal and ethical issues related to e-business. Skill development in creating and publishing Web pages and using the Internet for research, decision-making, and business communication is emphasized.
- BE 0350** PRINCIPLES OF INSURANCE
IBED 12106 Semester/Trimester/Year Prerequisite: BE 0190
- A course designed to introduce students to insurance products, rate-setting, insurance regulations and careers in the industry.
- BE 0410** ACCOUNTING I
IBED 12104/12104 Year/Two Year Prerequisite: None
(Keyboarding recommended)
- A course designed to emphasize accounting principles as they relate to the basic understanding and skills required in keeping manual and computerized financial records for a business. Emphasis is on providing basic skills for the accounting profession and/or preparation for further study in accounting. Accounting I may include software applications.
- BE 0420** ACCOUNTING II
IBED 12104 Year/Two Year Prerequisite: BE 0410
- Accounting II reinforces and expands the basic principles and procedures learned in Accounting I. Accounting II may include software applications.
- BE 0421** COMPUTERIZED ACCOUNTING
IBED 12104 Semester/Trimester/Year Prerequisite: BE 0410
- A course designed for students to study accounting principles as they relate to the understanding of financial records for a business using industry-standard software.
- BE 0425** PRINCIPLES OF WORLD FINANCE
IBED 12105 Semester/Trimester/Year Prerequisite: BE 0190
- A course designed to explore major components of the financial system including foreign trade, the monetary system, exchange rates, financial markets, multinational corporations and banking.
- BE 0600 (ME 0600) BUSINESS OWNERSHIP / ENTREPRENEURSHIP**
IBED 12053 Semester/Trimester Prerequisite: BE 0150 or BE 0200
- A course designed for students to expand their knowledge of business/marketing principles related to ownership and management of a business, traits and characteristics of successful entrepreneurs, and strategies of business management and marketing. The development of a business plan related to the students' area of entrepreneurial interest is a course objective. (Must be taught by a Marketing endorsed instructor to be part of the Marketing Program sequence.)
- BE0610** OFFICE TECHNOLOGIES
IBED 12002 Semester/Trimester/Year Prerequisite: BE 0110 or BE 0310
- A course designed to provide students with the procedures and skills necessary for the operation of a modern business office. The course includes integration of concepts into realistic simulations and

incorporation of computers as they relate to the typical tasks in a modern business. Students study emerging technologies and concepts that will allow them to function effectively in a high-tech environment.

BE 0640 ADMINISTRATIVE ASSISTANT INTERNSHIP
IBED 12998 Semester/Trimester Prerequisite: Instructor Approval

A course designed to allow a student the opportunity to serve as an intern to the local school district or school building office. The student will demonstrate competencies and skills acquired while working through an approved sequence of courses in the business/management program.

BE 0650 BUSINESS ADMINISTRATION MANAGEMENT
IBED 12049 Semester/Trimester/Year Prerequisite: BE 0022

A course designed to provide students project-based application of essential business and marketing competencies. The course demonstrates proficiency in the following areas: leadership, accounting principles, technology, salesmanship, marketing/entrepreneurship, general business principles, business law, human relations skills, public speaking, business communications, keyboarding skill development, computer applications, career awareness, and job seeking skills.

BE 9800 BUSINESS OCCUPATIONAL & CAREER EXPERIENCE
IBED 12998 Semester/Trimester Prerequisite: BE 0022 and One Other Business Class

A course designed as a community based work-experience activity organized and planned to develop advanced skills necessary to gain and maintain employment. This class may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experiences must be supervised and monitored by the teacher. **Note: This course must be approved on an individual program basis by the State Division.**

BE 9900 BUSINESS COOPERATIVE EDUCATION
IBED 12998 Semester/Trimester/Year Prerequisite: Concurrent Enrollment in an Advanced Business course

Cooperative Education is the coordinated work experience segment of any of the advanced business courses listed above. Community based instruction is organized and planned to provide specialized skills unique to an occupation or industry. Students are placed in businesses which provide paid on-the-job experience which is related to the student's primary area of study. The experience must be supervised by the teacher and students must have a training plan.

MARKETING EDUCATION

ME 0100 (BE 0100) BUSINESS ESSENTIALS
IBED 12001 Semester/Trimester Prerequisite: None

A course designed to introduce students to career exploration strategies with a focus on foundational skills and knowledge necessary for occupations in business. Establishment of employability traits will occur through the study and development of interpersonal, communication and leadership skills and knowledge. The course includes integration of skills and knowledge in reading, writing, mathematics, and economics as they relate to business occupations.

ME 0150 (BE 0150) BUSINESS MANAGEMENT
IBED 12052 Semester/Trimester/Year Prerequisite: Keyboarding

A course designed to introduce students to essential business and marketing competencies required for business operations. Units of instruction include general business and management principles, leadership, salesmanship, marketing/entrepreneurship, public speaking, and the use of accounting information for making business decisions.

ME 0153 (BE 0153) BANKING & FINANCE / MONEY MANAGEMENT/STOCK MARKET STRATEGIES
IBED 12107 Semester/Trimester Prerequisite: None

A course designed to examine the principles and practices of financial institutions. Students will

demonstrate skills and knowledge in money management, personal finance, investment and stock market strategies, institutions' operations and procedures, the Federal Reserve System, and credit functions and operations.

ME 0175 (BE 0175) **MARKETING COMMUNICATIONS**
 IBED 12199 Semester/Trimester/Year Prerequisite: None

A course designed to provide essential skills and knowledge required in workplace and business settings. The course content addresses written and oral communication and competencies that include writing, speaking, listening, and interpreting. Technology is applied as an integral aspect of business communication.

ME 0200 (BE 0200) **MARKETING ECONOMICS**
 IBED 12105 (Applied Economics on computers. May meet graduation requirements.)
 Semester/Trimester Prerequisite: None

A course designed to provide students an understanding of economic theory and principles. Theories of the economic free enterprise system, with a focus on decision-making and its relationship to how people produce, distribute, and consumer goods and services are examined. **Refer to Secondary School Courses of Study.**

ME 0225 **MARKETING RESEARCH**
 IBED 12152 Semester/Trimester Prerequisite: None

A course designed to introduce students to the marketing research process including research design, field work, data collection, and finding and presenting results. The curriculum has a strong project-based learning structure and may work in conjunction with DECA students who are interested in completing marketing research projects for State and National level competition. This course provides excellent preparation for college.

ME 0250 (OF 0560) **HOSPITALITY / TOURISM**
 IBED 16001 Semester/Trimester Prerequisite: None

A course designed to provide students skills and knowledge important within hospitality and tourism industries. Students will have the opportunity to explore career opportunities and develop an awareness and understanding of one of the largest industries in the world.

ME 0300 (BE 0300) **PRINCIPLES OF MARKETING**
 IBED 12164 Semester/Trimester Prerequisite: None

A course designed to focus on the fundamentals and functions of marketing as they relate to the competitive enterprise system. Marketing theory is presented and applied to business problems, practices, and the business environment and management systems. (This class must be taught by a Marketing endorsed instructor to be part of the Marketing Program sequence).

ME 0340 (BE 0340) **INTRODUCTION TO INTERNATIONAL BUSINESS / MARKETING**
 IBED 12056 Semester/Trimester Prerequisite: None

A course designed to provide students an introduction to international business and marketing. Topics will include exporting and importing basics, international economics and finance, distribution, laws and regulations, entrepreneurship, trade documentation, and employability skills.

ME 0341 (BE 0341) **INTERNATIONAL BUSINESS / MARKETING I**
 IBED 12056 Semester/Trimester Prerequisite: ME 0340
 or Permission of the Instructor

A course designed to provide students an introduction to international business and marketing. Topics will include exporting and importing basics, international economics and finance, distribution, laws and regulations, entrepreneurship, trade documentation, and employability skills.

ME 0342 (BE 0342) **INTERNATIONAL BUSINESS / MARKETING II**
 IBED 12056 Semester/Trimester Prerequisite: ME 0341

A course designed to study the rapidly increasing area of international business and marketing. This second semester class covers areas related to our economy as well as other countries' economic

and trade systems; proper procedures for linking with international business customers; and valuable aspects of becoming a part of this dynamic growing marketplace.

ME 0348 (BE 0348) E-COMMERCE
IBED 12162 Semester/Trimester/Year Prerequisite: ME 0300

A course designed to provide students with an understanding of the concepts and skills necessary for conducting e-business. Students will develop an understanding of the economic, social, legal and ethical issues related to e-business. Skill development in creating and publishing Web pages and using the Internet for research, decision-making, and business communication is emphasized.

ME 0350 RETAIL MERCHANDISING
IBED 12161 Semester/Trimester Prerequisite: None

A course designed to develop an understanding of the basic principles of product acquisition, pricing, inventory management, visual merchandising and advertising.

ME 0355 FASHION MERCHANDISING AND MARKETING
IBED 12153 Semester/Trimester Prerequisite: None

A course designed to provide an introduction and overview of the international business industry of Fashion Design and Merchandising including apparel & accessories marketing. Students will learn about the major components of the industry including fashion design, apparel classifications, and accessories. Additionally, students will learn about marketing strategies in fashion.

ME 0400 PRINCIPALS OF PROMOTION
IBED 12165 Semester/Trimester Prerequisite: None

A course designed to provide students with an understanding of basic marketing principles and strategies used to promote products and services that satisfy customers' needs and wants. The course will focus on identifying and analyzing principles of product benefits and features, advertising strategies, promotion/display, store layout, and personal selling.

ME 0500 PRINCIPLES OF MANAGEMENT
IBED 12166 Semester/Trimester Prerequisite: ME 0200
Consumer Economics, or Instructor's Permission

A course designed to focus on accomplishing the goals of an organization through the effective use of people and other resources. The functions of management are discussed and analyzed. Role playing, case analysis, guest lecturers and assignments are used to bring together the total management function.

ME 0550 SPORTS & ENTERTAINMENT MARKETING
IBED 12163 Semester/Trimester Prerequisite: ME 0200
or Instructor's Permission

A course designed to allow students to develop an understanding of the concepts and theories that apply to sports and entertainment marketing. This course covers basic marketing concepts such as; target marketing and segmentation, sponsorship, event management/marketing, promotions, sponsorship proposals, and implementation of sports and entertainment marketing plans. Students taking sports and entertainment marketing will have the opportunity to participate in DECA.

ME 0600 (BE 0600) BUSINESS OWNERSHIP / ENTREPRENEURSHIP
IBED 12053 Semester/Trimester Prerequisite: ME 0200
or Instructor's Permission

A course designed for students to expand their knowledge of business/marketing principles related to ownership and management of a business, traits and characteristics of successful entrepreneurs, and strategies of business management and marketing. The development of a business plan related to the students' area of entrepreneurial interest is a course objective. (Must be taught by a Marketing endorsed instructor to be part of the Marketing Program sequence.)

ME 0700
IBED 12202

MARKETING EDUCATION LAB
Semester/Trimester

Prerequisite: Concurrent enrollment
In another Marketing course

A course which provides students with the opportunity to work in the school store lab and experience the various responsibilities of operating a store, or to participate in and complete marketing projects that allow the student to utilize all the skill and knowledge gained throughout the marketing education program.

ME 9800
IBED 12198

MARKETING OCCUPATIONAL AND CAREER EXPERIENCE
Semester/Trimester

A course designed as a community based work-experience activity organized and planned to develop advanced skills necessary to gain and maintain employment. This class may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experiences must be supervised and monitored by the teacher. **Note: This course must be approved on an individual program basis by the State Division.**

ME 9900
IBED 12198

MARKETING COOPERATIVE EDUCATION
Semester/Trimester

Cooperative Education is the coordinated work experience segment of any of the advanced business courses listed above. Community based instruction organized and planned to provide specialized skills unique to an occupation or industry. Students are placed in businesses which provide paid on-the-job experience which is related to the student's primary area of study. The experience must be supervised by the teacher and students must have a training plan.

ACADEMY OF FINANCE

(Codes for approved National Academy of Finance programs only)

BT 0100 (MT 0100) INTRODUCTION TO FINANCIAL SERVICES I & II
IBED 12101 One or Two Semesters/Trimesters

This course can be offered either as a one or two-semester course to be given in either the ninth or tenth grade as a means of introducing students to the various sectors of the financial services industry. The objective of this course is to help students learn about both the nature of the careers found in a particular sector and the scope of the work that comprises businesses such as insurance, real estate, public finance, accounting, and the securities industry.

BT 0101 (MT 0101) STRATEGIES FOR SUCCESS
IBED 22151 Semester/Trimester

A course of study which helps to orient students to the world of work and school. Ideally, this course is offered in the ninth and tenth grades as it addresses the needs of students to develop good work and study habits, helps students to prepare portfolios, learn about school resources, develop career plans, start preparing for college and develop solid interpersonal skills, with an emphasis on communication and building self-esteem.

BT 0102 (MT 0102) BANKING & CREDIT
IBED 12102 Semester/Trimester

A course presenting a survey of the principles and practices of banking and credit in the U.S. Students learn about the major functions of banks and other depository institutions, their in-house operations and procedures, central banking through the Federal Reserve System and modern trends in the banking industry. The credit component provides an overview of credit functions and operations including credit risk evaluation, loan creation and debt collection.

BT 0103 (MT 0103) FINANCIAL PLANNING / FINANCIAL OPERATIONS
IBED 12103 Semester/Trimester

A course that introduces the students to the financial planning process and the components of a

comprehensive financial plan. The students learn how to prepare a financial plan that includes saving, investing, borrowing, risk management (insurance), and retirement and estate planning.

BT 0104 (MT 0104) INTERNATIONAL FINANCE
IBED 12056 Semester/Trimester

A course which explores major components of the international financial system. It includes the study of foreign trade, the international monetary system, foreign exchange rates, foreign exchange markets, international financial markets, international banking, and the multinational corporation.

BT 0105 (MT 0105) ECONOMICS & THE WORLD OF FINANCE
IBED 12105 Semester/Trimester

A course covering macro and micro-economics which provides an understanding of how our market economy functions in a global setting. It provides students with a survey of economic concepts including all of the basic principles recommended by the National Council on Economic Education. In addition, a unit on capital markets acquaints the students with the role that various markets and securities play in the U.S. Economy.

BT 0106 (MT 0106) SECURITIES
IBED12107 Semester/Trimester

A course focusing on the roles and functions of a modern securities organization. Through a study of the structure of brokerage firms, the trading process, credit and margin practices, automated processes, and government regulations, students gain an understanding of how a securities firm services its customers and plays an important role in our economy. Students are given the opportunity to relate their knowledge of economics, accounting, and data processing to the operations areas of various sectors of the securities industry. Emphasis is placed on the skills and attitudes necessary for success in business and college. NOTE: This course may be combined with Insurance, in a course titled "Securities and Insurance".

BT 0107 (MT 0107) INSURANCE
IBED 12106 Semester/Trimester

A course that introduces students to various elements of the insurance industry, including insurance needs and products for businesses and individuals. Students learn about insurance sales, rate-setting, insurance and financial planning, insurance regulations, and careers in the industry. NOTE: this course may be combined with Insurance, in a course titled "Securities and Insurance".

ACADEMY OF TRAVEL AND TOURISM

(Codes for approved National Academy of Travel and Tourism programs only)

MT 0101 (BT 0101) STRATEGIES FOR SUCCESS
IBED 22151 Semester/Trimester

A course of study which helps to orient students to the world of work and school. Ideally, this course is offered in the ninth and tenth grades as it addresses the needs of students to develop good work and study habits, helps students to prepare portfolios, learn about school resources, develop career plans, start preparing for college and develop solid interpersonal skills, with an emphasis on communication and building self-esteem.

MT 0200 INTRODUCTION TO TRAVEL & TOURISM
IBED 16151 Semester/Trimester

A course of study which provides an introduction to the travel and tourism industry. Students are given an overview of the various components of the industry, a history of the industry, an introduction to marketing and to the various exciting careers available in travel & tourism. Students also engage in a case study of their own particular city and study the latest trends which are impacting on the way people travel both for leisure and for business.

MT 0201
IBED 16155

ENGLISH FOR TRAVEL & TOURISM
One Year

A course of study in American literature (selected works are travel related) combined with an emphasis on oral as well as written communication. Students are prepared for the work world through a series of lessons on resume preparation and job-interview techniques.

MT 0202
IBED 16153

GEOGRAPHY FOR TRAVEL & TOURISM
Semester/Trimester

A course of study which is geared at having students develop broad geographic skills. In addition to learning how to utilize the basic tools of the geographer, students learn how economics, culture, history and political issues all impact upon geography and how geography impacts upon these other disciplines.

MT 0203
IBED 16152

TRAVEL & TOURISM II: TRAVEL AS A BUSINESS
Semester/Trimester

A course of study which provides students with a more in-depth study of particular components of the travel and tourism industry. Through an examination of the airline, hotel, cruise line and other industries within hospitality and travel, students are able to explore the various career opportunities and trends which are affecting each component of this vast industry.

FAMILY AND CONSUMER SCIENCES

Middle School/Junior High (Grades 6 - 8) (Not eligible for PTE funding)

IBEDS		
72201	FC 0020	Exploratory Family and Consumer Science (Grades 6 - 7 only)
72206	FC 0030	Young Living (8 th Grade)
72151	FC 0040	Technology, Life and Careers (Grades 7 & 8) (BE & TE 0061*)

PROFESSIONAL-TECHNICAL APPROVED COURSES Grades 9 -12

22206	FC 0101	Teen Living – Grades 9-10
22202	FC 0201	Nutrition & Foods – Grades 10-12
22204	FC 0202	Parenting & Child Development – Grades 10-12
22151	FC 0204	Career & Personal Development – Grades 10-12
22101	FC 0205	Leadership – Grades 9-12
22210	FC 0207	Personal and Family Finance/Economics –Grades 11-12
22208	FC 0301	Adult Living – Grades 11-12
08051	FC 0302	Family Health and Wellness – Grades 10-12
08056	FC 0501	Teen Parenting – Grades 9-12
22203	FC 0551	Food Science and Nutrition – Grades 10-12
19201	OF 0550	Apparel Design and Merchandising – Grades 10-12 ¹
19205	OF 0570	Housing, Interiors and Furnishings – Grades 10-12 ¹

NOTE: FCCLA (Family Career and Community Leaders of America) activities should be an integral part of all FACS courses.

OCCUPATIONAL FAMILY AND CONSUMER SCIENCES PROFESSIONAL-TECHNICAL APPROVED COURSES Grades 11-12

12053	OF 0520	Entrepreneurship Experience
19153	OF 0530	Early Childhood Professions
16052	OF 0540	Food Production, Management and Service
16054	OF 0545	Principles of Nutrition ¹
19201	OF 0550	Apparel Design and Merchandising ¹
16001	OF 0560	Hospitality Services (ME 0250*)
19205	OF 0570	Housing, Interiors and Furnishings ¹
19151	OF 0580	Education Assistant
19001	OF 0590	Human Services
19998	OF 9800	Occupational and Career Experience
19998	OF 9900	Cooperative Education

NOTE: FCCLA (Family Career and Community Leaders of America) activities should be an integral part of all FACS courses.

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/activities
None	AC 0019	Other Professional-Technical Courses

*Courses cross-coded to other program areas can be taught by teachers holding either endorsement.

¹ Apparel Design and Merchandising and Housing, Interiors and Furnishings may also be taught as one semester Introductory courses in grades 10-12 and will be funded as non-occupational Family and Consumer Sciences courses.

FAMILY AND CONSUMER SCIENCES EDUCATION PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a **senior** student who, as either a junior or senior, has taken a year-long capstone course. Prerequisites may be one or more semesters / trimesters.

The following occupational sequences are provided to help identify program completers and capstone courses.

OCCUPATIONAL FAMILY AND CONSUMER SCIENCES Program Sequence

Food Production, Management and Service

FC 0101	Teen Living
FC 0201	Nutrition and Foods ** and/or
FC 0551	Food Science and Nutrition ** (1-2 semesters/ trimester)
*OF 0540	Food Production, Management and Service
*OF 9900	Cooperative Education/Work Experience

Early Childhood Professions

FC 0101	Teen Living
FC 0204	Career and Personal Development** and/or
FC 0202	Parenting & Child Development **
*OF 0530	Early Childhood Professions (year long)
*OF 9900	Cooperative Education/Work Experience

Apparel Design and Merchandising

FC 0101	Teen Living** and/or
FC 0204	Career & Personal Development **
*OF 0550	Apparel Design and Merchandising
*OF 9900	Cooperative Education/Work Experience

Human Services

FC 0101	Teen Living
FC 0204	Career & Personal Development** and/or
FC 0302	Family Health and Wellness** and/or
FC 0207	Personal & Family Finance
*OF0590	Human Services
*OF 9900	Cooperative Education/Work Experience

Housing, Interiors and Furnishings

FC 0101	Teen Living ** and/or
FC 0204	Career & Personal Development **
*OF 0570	Housing, Interiors and Furnishings
*OF 9900	Cooperative Education/Work Experience

Hospitality Services/Tourism

FC 0101	Teen Living
FC 0201	Nutrition and Foods** and/or
FC 0204	Career & Personal Development **
*OF 0560	Hospitality Services/Tourism (year long)
*OF 9900	Cooperative Education/Work Experience

Entrepreneurship Experience

FC 0101	Teen Living
FC 0204	Career & Personal Development **and/or
FC 0201	Nutrition and Foods**
*OF 0520	Entrepreneurship Experience (year long)
*OF 9900	Cooperative Education/Work Experience

Education Assistant

FC 0101	Teen Living
FC 0202	Parenting & Child Development ** and/or
FC 0202	Career & Personal Development**
*OF0580	Education Assistant (year long)
*OF 9900	Cooperative Education/Work Experience

- **Capstone courses** are those in which the Occupational Competency Attainment will be measured. The content of capstone courses will be of an advanced nature and must be year-long.

Please Note: Year-long Capstone courses must be preceded by the required prerequisite(s). An occupational Program of Study must also include a simulation, work or service learning experience. FCCLA is an essential component of all Occupational programs.

**Prerequisites (semester/trimester)

NON-OCCUPATIONAL FAMILY AND CONSUMER SCIENCES

Adult Living

FC 0101 Teen Living –and / or one or more courses in Family & Consumer Sciences **
*FC 0301 Adult Living (year long)
FC 9800 Occupational and Career Experience

* Capstone courses for the sequence option - Capstone courses are those in which Competency Attainment will be measured. The content of capstone courses will be of an advanced nature.

Please Note: The **capstone course** must be preceded by the required prerequisite(s) in order to be a completer. FCCLA is an integral part of all FCS programs.

**Prerequisites (semester/trimester)

FAMILY AND CONSUMER SCIENCES

- FC 0020**
IBEDS 72201 **EXPLORATORY FAMILY AND CONSUMER SCIENCE (Grades 6 - 7)**
6 - 9 Weeks
- A course designed to help early adolescents explore the areas of personal development, relationships, personal resources, child care, personal living space, appearance, sewing, and foods for wellness. FCCLA activities should be integrated into this course.
- FC 0030**
IBEDS 72206 **YOUNG LIVING (Grade 8)**
One or Two Semesters/Trimesters
- A course designed to be offered for the young adolescent. The emphasis of the course will be to develop knowledge and skills in the areas of goal setting, decision-making, personal development, careers, clothing, relationships, personal finance, personal living space, foods and wellness. FCCLA activities should be integrated into this course.
- FC 0040**
(BE 0061, TE 0061)
IBEDS 72151 **TECHNOLOGY, LIFE and CAREERS (Grades 7 - 8)**
One or Two Semesters/Trimesters
- An introductory interdisciplinary offering that allows young adolescents to explore a variety of occupations in Idaho's Career Clusters. The content includes basic knowledge, skills and attitudes needed for success in all occupations. Students will develop technology skills, explore career interests, the world of work, human relations, health and safety, and process skills. It is recommended that students have an opportunity to observe or volunteer in work and community settings. Students who complete this experience will be better prepared to develop a four-year student learning plan. FCCLA activities should be integrated into this course.
- FC 0101**
IBEDS 22206 **TEEN LIVING (9-10)**
One or Two Semesters/Trimesters
- The emphasis of this course is to build on skills in the areas of personal development, relationships, human and family development, clothing, resource management, personal living space, nutrition and wellness, career choices and leadership skills. This course focuses on the student's role and responsibility as a teen participating in the family, school and community. FCCLA activities should be integrated into this course.
- FC 0201**
IBEDS 22202 **NUTRITION & FOODS (10-12)**
Semester/Trimester
- A course designed to provide students with an understanding of food's role in society, instruction in how to plan and prepare meals, wellness and personal lifestyle. Content includes food safety and sanitation, proper use of equipment and utensils, meal management skills, nutrition, food purchasing, preparation techniques and careers in related fields. This course is a prerequisite for Food Production, Management and Services; Hospitality Services/Tourism; and Entrepreneurship. FCCLA activities should be integrated into this course.
- FC 0202**
IBEDS 22204 **PARENTING & CHILD DEVELOPMENT (10-12)**
One or Two Semesters/Trimesters
- This course emphasizes parenting choices and parenting decisions. Content includes stages of prenatal development and the physical, intellectual, social and emotional development of the infant and young child. This course is designed to strengthen parenting and guidance skills, positive family relationships, safety, and health practices. Students will learn to evaluate child care services, and to explore careers related to young children. This course is a prerequisite for Early Childhood Professions and Education Assistant. FCCLA activities should be integrated into this course.
- FC 0204**
IBEDS 22151 **CAREER AND PERSONAL DEVELOPMENT (10-12)**
Semester/Trimester
- The concepts included in this course provide the foundations for all programs of study. This course helps students identify and evaluate personal goals, priorities, aptitudes and interests with the goal of making informed decisions about their careers. The focus is on the practical aspects of investigating, pursuing, achieving, and keeping employment in a global society. The curriculum emphasizes

communication, employability skills, leadership and balancing work and family. This course is a prerequisite for Early Childhood Professions; Education Assistant; Apparel Design and Merchandising; Human Services; Food Production, Management and Services; Hospitality Services/Tourism; and Entrepreneurship. FCCLA activities should be integrated into this course.

FC 0205
IBEDS 22101

LEADERSHIP (10-12)
Semester/Trimester

This leadership course is designed to strengthen students' personal and group leadership skills. It provides students an opportunity to explore character traits and characteristics that are needed to become an effective leader. Students practice their leadership skills through community service projects and a variety of leadership activities through the FCCLA student organization. This course covers topics such as public speaking, effective communication, human relations, parliamentary laws and procedures, organization and management and group dynamics.

FC 0207
IBEDS 22210

PERSONAL AND FAMILY FINANCE/ECONOMICS (11-12)
Semester/Trimester

This course provides an understanding of basic economic concepts, use of economic reasoning skills, the impact of economics systems and the role of the government. It provides students with financial skills for personal and family well-being, financial services, responsible use of credit, consumer decisions, saving and investing, insurance, spending patterns, contracts and budget planning. This course will earn Economics credit when taught by a Family and Consumer Sciences teacher who has an Economics endorsement. Idaho Content Standards for Economics and Personal Finance have been included in this course. This course is a prerequisite for Human Services. FCCLA activities should be integrated into this course.

FC 0301
IBEDS 22208

ADULT LIVING (11-12)
One or Two Semesters/Trimesters

A course designed to focus on the young adult as an individual preparing for responsibilities in the home, family, community and work environment. The student will gain relationship skills and life management skills, utilize problem-solving methods, management processes, employment, and leadership skills. Adult Living is designed as two independent but sequential semesters/ trimesters with one semester focusing on independent living skills and one semester on building and maintaining healthy interpersonal relationship among family members and other members of society. FCCLA activities should be integrated into this course.

FC 0302
IBEDS 08051

FAMILY HEALTH and WELLNESS (10-12)
Semester/Trimester

A course designed to prepare individuals with the basic principles of physical, emotional, social and mental well-being. Key content includes personal health and wellness, (nutrition, mental health, stress management, drug/alcohol abuse prevention, disease prevention and first aid) healthy growth and development, family health issues; managing health resources; careers in the health field; and community, national and world health issues. This course will earn a health credit when taught by a Family and Consumer Sciences teacher who has a Health endorsement. Idaho Content Standards for Health have been included in this course. This course is a prerequisite for Human Services. FCCLA activities should be integrated into this course.

FC 0501
IBEDS 08056

TEEN PARENTING (9-12)
Two Semesters/Trimesters

A course designed to help pregnant and parenting teens with their unique roles and responsibilities. Emphasis is on pregnancy, pre-natal development, postnatal care, health and well-being of young parents, early childhood development, nurturing and guidance, decision making and goal setting, stress management, child nutrition, health and safety, parenting resources, and child care services. The course may also include academic assistance, career exploration and financial management. A guided laboratory experience in working with infants and young children is highly recommended. FCCLA activities should be integrated into this course.

FC 0551

FOOD SCIENCE AND NUTRITION (10-12)

IBEDS 22203

One or Two Semesters/Trimesters

The focus of this course is on the scientific and chemical basis of nutrition, preparation, preservation and processing of food products. Students will study the composition, structure, and properties of foods and the chemical changes that occur during the processing, storage, preparation and consumption of food. Scientific methods are used to conduct lab experiments with food. Students with interest/career plans in food science or dietetics will benefit from this course. Students may earn a lab science credit for when the course is taught by a Family and Consumer Sciences instructor who has a Natural Science endorsement. This course is a prerequisite for Food Production, Management and Service. FCCLA activities should be integrated into this course.

OCCUPATIONAL FAMILY AND CONSUMER SCIENCES**OF 0520
IBEDS 12053****ENTREPRENEURSHIP EXPERIENCE (11-12)**
Two Semesters/TrimestersPrerequisite: Career & Personal Development
and/or Nutrition & Foods
or Apparel Design & Merchandising

A year-long course preparing individuals for employment or entrepreneurship in a variety of occupations utilizing knowledge and skills related to family and consumer sciences content. Skill development is achieved through the classroom laboratory, and a school-based enterprise or cooperative work experience. Classroom instruction includes developing a business plan, marketing, and workplace knowledge and skills. (Articulation agreements with postsecondary technical programs provide credit and a smooth transition to further education.) FCCLA activities should be integrated into this course.

**OF 0530
IBEDS 19153****EARLY CHILDHOOD PROFESSIONS (11-12)**
Two Semesters/TrimestersPrerequisite: Parenting & Child Development
and/or Career & Personal Development

A year-long course designed to prepare students to work with young children in a variety of occupational settings related to the young child. Emphasis is on employability skills, human development, care-giving techniques, lesson planning, and management skills. Work site experiences provide opportunities to observe, plan and direct activities for young children. Articulation agreements with postsecondary technical programs provide credit and a smooth transition to further education. FCCLA activities should be integrated into this course.

**OF 0540
IBEDS 16052****FOOD PRODUCTION, MANAGEMENT and SERVICE (11-12)**
Two Semesters/TrimestersPrerequisite: Nutrition & Foods
and/or Food Science & Nutrition

A year-long course in professional food preparation with practical applications emphasizing: career opportunities, reinforced basic skills, food safety and sanitation, use of commercial equipment, industrial food preparation, business management, food service techniques and employability skills. Work experiences may be in a school-based enterprise, district food service, local restaurants or other food production establishments. Articulation agreements with postsecondary technical programs provide credit and a smooth transition to further education. FCCLA activities should be integrated into this course.

**OF 0550 ²
IBEDS 19201****APPAREL DESIGN AND MERCHANDISING (10-12)**
Two Semesters/TrimestersPrerequisite: Teen Living and/or
Career & Personal Development

This course introduces students to the various aspects of apparel, garment construction and textiles including selection, characteristics, care, and repair techniques. It helps to prepare students for employment in the apparel design and merchandising industry. Emphasis is on career opportunities; textile and garment design; trends and cycles; manufacturing and production; and business procedures in buying, selling, displaying, publicizing and advertising. Skill development in design, production and alteration will be included. Work-based experiences may be through a school-based

² Apparel Design and Merchandising and Housing, Interiors and Furnishings may also be taught as one semester introductory courses and will be funded as non-occupational Family and Consumer Sciences courses.

enterprise or a community business partner. FCCLA activities should be integrated into this course.

OF 0560 (ME 0250) HOSPITALITY SERVICES (11-12)
 IBEDS 16001 Two Semesters/Trimesters Prerequisite: Nutrition & Foods and/or
 Career and Personal Development

A year-long course designed to meet the needs of students who seek to enter the growing field of hospitality, blending communications and human relations skills with technical proficiency. This course is designed to prepare students for employment in positions that provide customer-focused services in such hospitality fields as food service, lodging, tourism and recreation. A work experience should be in area hotels, resorts or other hospitality-related job sites. Articulation agreements with technical programs provide credit and a smooth transition to further education. FCCLA activities should be integrated into this course.

OF 0570² HOUSING, INTERIORS AND FURNISHINGS (10-12)
 IBEDS 19205 Two Semesters/Trimesters Prerequisite: Career & Personal
 Development and/or Teen Living

A year-long course that integrates knowledge, skills and practices required for careers in the housing, interiors and furnishings industry. Students will evaluate housing decisions, develop and practice design techniques, and demonstrate skills through visual presentations. Instruction includes design principles, construction techniques, and materials and equipment selection. A work experience in the housing, interiors and furnishing industry or real estate is a part of this course. FCCLA activities should be integrated into this course.

OF 0580 EDUCATION ASSISTANT (11-12)
 IBEDS 19151 Two Semesters/Trimesters Prerequisite: Parenting & Child Development
 and/or Career and Personal Development

Following an orientation period, students are assigned to a preschool, elementary or middle school classroom where they assist the teacher and have the opportunity to try out the role of a teacher. This year-long course prepares individuals for further education opportunities at the postsecondary level in paraprofessional or teacher education programs. Students work one-on-one with students who need extra help, assist with academic progress and support the classroom teacher's instructional, behavioral and management plans. Students work on developing self-management, communication, social and organizational skills needed to enter the education field. Articulation agreements with postsecondary schools provide credit and a smooth transition to further education. FCCLA activities should be integrated into this course.

OF 0590 HUMAN SERVICES (11-12)
 IBEDS19001 Two Semesters/Trimesters Prerequisite: Family Health and Wellness
 and/or Career & Personal Development
 and/or Personal & Family Finance/ Economics

A year-long course that focuses on the functional roles and responsibilities of human services professionals and how they apply their skills to assist individuals and families in the areas of consumer services, personal services, family and community services, counseling and early childhood services. Students in human services gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. This course may articulate to a variety of human services programs at the postsecondary level to prepare learners for professional and technical careers. FCCLA activities should be integrated into this course.

OF 9800 OCCUPATIONAL AND CAREER EXPERIENCE (11-12)
 IBEDS 19998 One or Two Semesters/Trimesters Prerequisite: Career and Personal Development

A community-based work experience organized and planned to develop knowledge and skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work or service learning experiences related to the career objectives of the student. The experiences must be supervised and monitored by the teacher through a training plan. FCCLA activities should be integrated into this course.

OF 9900 COOPERATIVE EDUCATION (11-12)
 IBED 19998 One or Two Semesters/Trimesters Prerequisite: Enrollment in an Occupational

Family and Consumer Sciences program

Community-based instruction organized and planned to provide specialized skills unique to an occupation or industry following an occupational FCS class. Students are placed in businesses that provide paid on-the-job experience related to the student's primary area of study in one of the FCS occupational programs. The experience must be supervised by the teacher and students must have a training plan and agreement with the business partner. FCCLA activities should be integrated into this course.

HEALTH PROFESSIONS EDUCATION

PROFESSIONAL-TECHNICAL APPROVED COURSES Grades 9-12

IBEDS

14001	HP 0130	Orientation to Health Professions
14002	HP 0133	Fundamentals for Health Professions
14051	HP 0230	Nursing Assistant
14063	HP 0233	Mental Health Assistant
14203	HP 0234	Health Unit Clerk/Coordinator
14055	HP 0237	Emergency Medical Technician - Basic
14152	HP 0238	Pharmacy Technician
14054	HP 0330	Fundamentals of Dental Assisting
14060	HP 0432	Physical Therapy Aide
19054	HP 0442	Combined Nursing Assistant and Providing Services to People with Disabilities
14062	HP 0445	Sports Medicine/Athletic Training
14062	HP 0446	Personal Trainer
14154	HP 0630	Medical Terminology for Healthcare
14155	HP 0632	Medical Math for Health Care Professionals
14153	HP 0634	Health Information Technology I (<i>Medical Records</i>)
14153	HP 0635	Health Information Technology II
14063	HP 0730	Anatomy and Physiology for Health Professions
14998	HP 9800	Clinical Education
14998	HP 9900	Cooperative Education

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/Activities
None	AC 0019	Other Professional-Technical Courses

HEALTH PROFESSIONS EDUCATION PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a senior student who, as either a junior or senior, has taken a capstone course.

HP 0130	Orientation to Health Professions
HP 0133	Fundamentals for Health Professions
*HP 0230	Nursing Assistant
*HP 0233	Mental Health Assistant
*HP 0234	Health Unit Clerk/Coordinator
*HP 0237	Emergency Medical Technician - Basic
*HP 0238	Pharmacy Technician
*HP 0330	Fundamentals of Dental Assisting
*HP 0432	Physical Therapy Aide
*HP 0442	Combined Nursing Assistant and Providing Services to People With Disabilities
*HP 0445	Sports Medicine/Athletic Training
*HP 0446	Personal Trainer
HP 0630	Medical Terminology for Healthcare
HP 0632	Medical Math for Health Care Professionals
HP 0634	Health Information Technology I
*HP 0635	Health Information Technology II
HP 0730	Anatomy and Physiology for Health Professions
*HP 9800	Clinical Education
*HP 9900	Cooperative Education

* Capstone course for the sequence option - Capstone courses are those in which the Occupational Competency Attainment will be measured. The content of capstone courses will be of an advanced nature.

Please note: Orientation to Health Professions (HP 0130), or Fundamentals for Health Professions (HP 0133) is a prerequisite to all capstone courses.

HEALTH PROFESSIONS EDUCATION

HP 0130 IBED 14001	ORIENTATION TO HEALTH PROFESSIONS Two Semesters/Two Trimesters	Prerequisite: None
<p>An exploratory course that provides the student initial exposure and acquisition of knowledge, skills and attitudes associated with a broad range of occupations relating to careers in health including job requirements and tasks performed. This course will assist students in making informed decisions regarding their future academic and occupational goals in the health care field.</p>		
HP 0133 IBED 14002	FUNDAMENTALS FOR HEALTH PROFESSIONS Two Semesters/Two Trimesters	Prerequisite: None
<p>An online course that introduces students to the health care industry by exposing them to over one hundred health related careers. In addition, this course presents the fundamental knowledge that is common to all health professions. (Note: This course is equivalent to HP 0130 Orientation to Health Professions.)</p>		
HP 0230 IBED 14051	NURSING ASSISTANT One or Two Semesters/Trimester	Prerequisite: Completion of Year One of Health Professions or Fundamentals for Health Professions, the Nursing Assistant Program and Permission of the Instructor
<p>A course designed to prepare students for beginning employment as nursing assistants in nursing homes, hospitals, and other settings. Successful completion of the course qualifies the student to test for the Registry for Nursing Assistants. Content includes medical terminology, anatomy and physiology, care of the patient, and assisting as a member of the health care team.</p>		
HP 0233 IBED 14063	MENTAL HEALTH ASSISTANT One Semesters/Two Trimesters	Prerequisite: Completion of Year One of Health Professions or Fundamentals for Health Professions, the Nursing Assistant Program and Permission of the Instructor
<p>A program of study that prepares the student to assist with the care of persons requiring services in the specialized field of mental health/mental illness. Students are prepared for employability and advanced study.</p>		
HP 0234 IBED 14203	HEALTH UNIT CLERK/COORDINATOR One or Two Semesters	Prerequisite: Completion of Year One of Health Professions or Fundamentals for Health Professions
<p>A course designed to prepare students as unit clerks in health care facilities. Students develop the knowledge, skills and attitudes necessary for employment as nonclinical workers within healthcare units. Areas of instruction include applied anatomy and medical terminology, communications (personal and communication devices), problem solving, environmental management, transcription of physicians' orders and problem solving. Student completion of actual work experience is desired.</p>		
HP 0237 IBED 14055	EMERGENCY MEDICAL TECHNICIAN – BASIC Two Semesters/Trimesters	Prerequisite: Completion of Year One of Health Professions or Fundamentals for Health Professions
<p>A course designed to instruct senior level high school students to the level of Emergency Medical Technician-Basic, a person who serves as a vital link in the chain of the health care team at a basic</p>		

life support level with an ambulance service or other specialized service.

HP 0238
IBED 14197

PHARMACY TECHNICIAN
One or Two Semesters/Trimesters

Prerequisite: Orientation to Health Professions
or Fundamentals for Health Professions

A self study course designed to prepare students for beginning employment as a Pharmacy Technician under the supervision of pharmacists in pharmacies, hospitals and other settings. Successful completion of the course qualifies the student to take the Pharmacy Technician Certifying Board certification exam. Content includes pharmaceutical terminology, drug identification, measurement techniques, record keeping, business operations, prescription preparation, logistics and dispensing operations and applicable standards and regulations.

HP 0330
IBED 14054

FUNDAMENTALS OF DENTAL ASSISTING
Two Semesters/Trimester

Prerequisite: Completion of Year One of Health Professions or Fundamentals for Health Professions **and** Permission of Instructor

A course designed to provide the student with basic background knowledge, skills and attitudes for employment in a dental office as a beginning dental assistant. Areas of instruction include dental terminology, charting, cavity classification, infection control, local anesthesia, oral surgery, and ethics and jurisprudence.

HP 0432
IBED 14060

PHYSICAL THERAPY AIDE
Semester/Trimester

Prerequisites: Completion of Year One of Health Professions or Fundamentals for Health Professions, Sports Medicine **and** Permission of the Instructor

A course that introduces students to the basic knowledge, skills and attitudes for success in the field of physical therapy at the aide level. Content includes terminology, clerical, technical and therapeutic methods and the roles/responsibilities of each member of the physical therapy team.

HP 0442
IBED 19054

COMBINED NURSING ASSISTANT AND PROVIDING SERVICES TO PEOPLE WITH DISABILITIES
Semester/Trimester

Prerequisites: Completion of Year One of Health Professions or Fundamentals for Health Professions **and** Permission of the Instructor and 1 semester of Nursing Assistant

A course that combines the essentials of the Nursing Assistant Course with the Providing Services to People with Disabilities course. Students earn a certificate that qualifies them to be Personal Care Providers.

HP 0445
IBED 14062

SPORTS MEDICINE/ATHLETIC TRAINING
Two Semesters/Two Trimesters

Prerequisites: Completion of Year One of Health Professions or Fundamentals for Health Professions

A program that introduces students to the basic knowledge, skills and attitudes needed to assist in the career fields of Sports Medicine and Athletic Training. Students explore related careers and may assist, with permission, with athletic training teams.

HP 0446
IBED 14062

PERSONAL TRAINER
Two Semesters/Two Trimesters

Prerequisites: Completion of Year One of Health Professions or Fundamentals for Health Professions **and** Sports Medicine/Athletic Training

A program that prepares students to be a personal trainer, working one-on-one with an individual to develop an exercise prescription based on health status, goals and the like. Upon completion of the program the student will be eligible to take a national certification exam.

HP 0630 IBED 14154	MEDICAL TERMINOLOGY FOR HEALTH PROFESSIONS Semester/Trimester	Prerequisite: Orientation to Health Professions; Fundamentals for Health Professions; or concurrent enrollment
<p>This course presents a study of medical terminology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. All body systems, anatomical reference, pharmacology, and medical specialties will be considered. Emphasis is placed on spelling, definition, usage, and pronunciation.</p>		
HP 0632 IBED 14155	MEDICAL MATH FOR HEALTH CARE PROFESSIONALS Semester/Trimester	Prerequisite: Orientation to Health Professions; Fundamentals for Health Professions; or concurrent enrollment
<p>This course includes instruction in fractions; decimals; solving equations in one variable; ratio and proportion involving dimensions; equivalents and conversions between different systems of measurement, and dosage calculations involving both oral and intravenous drugs. Includes instruction in systems of measurement (including metric and apothecary); conversions; reductions; ratios and proportions; solving linear equations, formulas, and solution; and mixture problems.</p>		
HP 0634 IBED 14153	HEALTH INFORMATION TECHNOLOGY I Two Semesters/Trimesters	Prerequisite: Orientation to Health Professions Fundamentals for Health Professions and Medical Terminology for Health Professions
<p>This course presents an overview of the medical record and coding procedures, to include the International Classification of Diseases, Clinical Manifestation and Common Procedural Terminology. It includes transcription of medical reports from individual case studies taken from hospital medical records. The reports include history and physical examinations, radiology reports, operative reports, pathology reports, requests for consultations, death summaries, discharge summaries, and autopsy reports. Specialty areas related to the body systems are emphasized. Helps prepare students to take the Certified Medical Transcription examination.</p>		
HP 0635 IBED 14153	HEALTH INFORMATION TECHNOLOGY II Two Semesters/Trimesters	Prerequisite: Orientation to Health Professions or Fundamentals for Health Professions and Medical Terminology for Health Professions and Health Information Technology I
<p>This course presents an overview of computer technology concepts related to health care and application of the tools and techniques for collecting, storing and retrieving data. An overview of CPT-4 coding systems with emphasis on basic coding rules and application of CPT coding procedures in the ambulatory care setting; coding and reimbursement methodologies inclusive of Prospective Payment Systems, Diagnosis Related Groups, Resource Based Relative Value system, Ambulatory Patient Groups, and other payment methods. Also covered are legal aspects of health information, study of the court system, terminology, health record as a legal document, consent, confidentiality laws, and data security applied to health record practice.</p>		
HP 0730 IBED 14063	ANATOMY AND PHYSIOLOGY FOR HEALTH PROFESSIONS Semester/Trimester	Prerequisite: Orientation to Health Professions or Fundamentals for Health Professions and Medical Terminology for Health Professions
<p>A course designed to help students master the structural and functional elements and relationships of the human body as they pertain to the health professions.</p>		
HP 9800 IBED 14998	CLINICAL EDUCATION Semester/Trimester	Prerequisite: Completion of year-one of Health Professions or Fundamentals for Health Professions or prior enrollment in capstone course
<p>A community based work experience activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objectives of the student. The experiences must</p>		

be supervised and monitored by the teacher. (Note: This course must be approved on an individual program basis by the State Division.)

HP 9900
IBED 14998

COOPERATIVE EDUCATION
Semester/Trimester

Prerequisite: Completion of year-one of Health Professions or prior enrollment in capstone course

Community based instruction organized and planned to provide specialized skills unique to an occupation or industry. Students are placed in businesses which provide paid on-the-job experience which is related to the student's primary area of study. The experience must be supervised by the teacher and students must have a training plan.

**INDIVIDUALIZED OCCUPATIONAL TRAINING
PROFESSIONAL-TECHNICAL APPROVED COURSES**

IBEDS		
22151	OT 0100	Career Exploration and Employment Preparation
22998	OT 0110	Work-Based Learning Experience I
22998	OT 0120	Work-Based Learning Experience II
22998	OT 0130	Work-Based Learning Experience III
22998	OT 0140	Work-Based Learning Experience IV

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/Activities
None	AC 0019	Other Professional-Technical Courses

NOTE: An approved IOT program must contain at least one semester of Career Exploration and Employment Preparation (OT 0100) and at least one semester of Work-Based Learning Experience (OT 0110-OT 0140). The work-based learning experience should be in an occupational field related to the career choice of the student. VTECS Connect software is required in the preparation of student learning plans and the tracking of work-based learning students.

INDIVIDUALIZED OCCUPATIONAL TRAINING PROGRAM OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a **senior** student who, as either a junior or senior, has taken a capstone course.

OT 0100 Career Exploration and Employment Preparation

*OT 0110 Work-Based Learning Experience I

*OT 0120 Work-Based Learning Experience II

*OT 0130 Work-Based Learning Experience III

*OT 0140 Work-Based Learning Experience IV & V

NOTE: An IOT program must contain at least one semester of Career Exploration and Employment Preparation (OT 0100) and at least one semester of Work-Based Learning Experience (OT 0110-OT 0140). The work-based learning experience should be in an occupational field related to the career choice of the student. VTECS Connect software is required in the preparation of student learning plans and the tracking of work-based learning students.

* **Capstone course** for the sequence option should be the last semester of a student's work-based learning experience. The work-based learning experience courses (OT110-OT140) show the number of semesters a student has had a work-based learning experience. Any of the work-based learning courses can serve as the capstone course and is the last semester that the student takes work-based learning.

INDIVIDUALIZED OCCUPATIONAL TRAINING

Program Description:

Individualized occupational training (IOT) programs will provide organized, work-based learning experiences to fit individual student career choices and expand the range of applied technical education a school can offer. The IOT program sequence includes an introductory course, "Career Exploration and Employment Preparation", and a series of work-based learning experiences at community worksites.

OT 0100 CAREER EXPLORATION AND EMPLOYMENT PREPARATION
IBED 22151 Semester/Trimester Prerequisite: None

An introductory course designed to assist students in establishing career and educational direction, and to prepare them for a work-based learning experience suited to their strengths and motivations.

OT 0110 * WORK-BASED LEARNING EXPERIENCE I
IBED 22998 Semester/Trimester Prerequisite: Career Exploration and Employment Preparation

This is the first semester of a student's work-based learning experience at an approved worksite. Technical instruction is provided by a community worksite mentor/trainer and coordinated by a certified work-based learning coordinator. Training plans and agreements are required. All students must have training plans developed from an occupational training outline that meets current industry standards. The use of VTECS Connect software for the preparation of these training plans and the tracking of the work-based learning experience is a requirement.

OT 0120 WORK-BASED LEARNING EXPERIENCE II
IBED 22998 Semester/Trimester Prerequisite: Work-Based Learning Experience I

This is the second semester of a work-based learning experience. Training plans and agreements are required. All students must have training plans developed from an occupational training outline that meets current industry standards. The use of VTECS Connect software for the preparation of these training plans and the tracking of the work-based learning experience is a requirement.

OT 0130 WORK-BASED LEARNING EXPERIENCE III
IBED 22998 Semester/Trimester Prerequisite: Work-Based Learning Experience II

This is the third semester of a work-based learning experience at an approved worksite. Training plans and agreements are required. All students must have training plans developed from an occupational training outline that meets current industry standards. The use of VTECS Connect software for the preparation of these training plans and the tracking of the work-based learning experience is a requirement.

OT 0140 WORK-BASED LEARNING EXPERIENCE IV
IBED 22998 Semester/Trimester Prerequisite: Work-Based Learning Experience III

This is the fourth semester of a work-based learning experience at an approved worksite. Training plans and agreements are required. All students must have training plans developed from an occupational training outline that meets current industry standards. Work-Based Learning Experience V should be taken during the second semester of the student's Senior year and should include a work-based learning project completed by the student. The use of VTECS Connect software for the preparation of these training plans and the tracking of the work-based learning experience is a requirement.

* Some occupations may have a minimum age requirement.

Engineering and Technology Education

TECHNOLOGY EDUCATION PROFESSIONAL-TECHNICAL APPROVED COURSES Grades 9-12

21051 TE 1901 Exploring Technology (9th Grade)
21052 TE 1905 Fundamentals of Technology (9th Grade)

Construction

17002 TE 1920 Construction Systems I
17002 TE 1921 Construction Systems II
17007 TE 1922 Introduction to Cabinetry
17007 TE 1923 Advanced Cabinetry

Manufacturing

13002 TE 1931 Manufacturing Systems I
13002 TE 1932 Manufacturing Systems II
21009 TE 1933 Introduction to Robotics
21009 TE 1934 Robotics Applications
21010 TE 0402 Computer Aided Manufacturing [CAM] Technology

Power, Energy and Transportation (P.E.T.)

20101 TE 1940 Power, Energy and Transportation Systems I
20101 TE 1941 Power, Energy and Transportation Systems II
17106 TE 0501 Introduction to Electronics Technology
17106 TE 0502 Electronics Applications

Communications

11002 TE 1951 Communication Systems I
11002 TE 1952 Communication Systems II
11054 TE 1953 Digital Imaging Technology
11055 TE 1959 Video Editing Technology
21102 TE 0220 Introduction to Drafting/Design Technology
21106 TE 0222 Introduction to Mechanical Drafting/Design
21103 TE 0224 Introduction to Architectural Drafting/Design
21105 TE 0226 Introduction to Electronics Drafting/Design
21104 TE 0228 Introduction to Structural Drafting/Design
11153 TE 0230 Technical Illustration Technology
11155 TE 0240 Graphic Design Technology
21107 TE 0303 Introduction to Computer Aided Drafting/Design

Internship/Occupational Career Experience

21098 TE 9800 Occupational & Career Experience

OTHER COURSES AND ASSIGNMENTS

22850 PR 0001 Preparation Period
None 00 0000 No Class or Activity
None AC 0017 All other courses/Activities
None AC 0019 Other Professional-Technical Courses

**PRE-ENGINEERING
PROFESSIONAL-TECHNICAL APPROVED COURSES
Grades 9-12**

21004	TE 1501	Principles of Engineering
21006	TE 1502	Introduction to Engineering Design
21008	TE 1503	Digital Electronics
21010	TE 1510	Computer Integrated Manufacturing
21012	TE 1520	Civil Engineering and Architecture
21013	TE 1526	Aerospace Engineering
21014	TE 1527	Biotechnical Engineering
21007	TE 1525	Engineering Design and Development

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/Activities
None	AC 0019	Other Professional-Technical Courses

TECHNOLOGY EDUCATION CLUSTER PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a **senior** student who, as either a junior or senior, has completed the **minimum two year** program of study and taken and passed the aligned capstone course.

Typical Programs of Study with **Capstone** course:

	Grade 9 (semester/ trimester/year)	Grade 10 (semester/ trimester/year)	Grade 11 (semester/ trimester/year)	Grade 12 (semester/ trimester/year)	Other Technology Education Accepted Courses
Construction Systems Technology Pathway	Fundamentals of Technology TE1905**	Construction Systems I TE1920 or Intro to Cabinetry TE 1922	Construction Systems II TE1921 or Adv. Cabinetry TE1923	Occupational & Career Experience TE9800	Exploring Technology TE1901**
Manufacturing Systems Technology Pathway	Fundamentals of Technology TE1905**	Manufacturing Systems I TE1931 or Intro to Robotics TE1933	Manufacturing Systems II TE1932 or Robotics Applic. TE1934	Occupational & Career Experience TE9800	Intro to Mechanical Drafting/Design TE0222 or Computer Aided Manufacturing Technology TE0402
Power, Energy & Transportation Technology Pathway	Fundamentals of Technology TE1905**	PET I TE1940 or Intro to Electronics Technology TE0501	PET II TE1941 or Electronics Applications TE0502	Occupational & Career Experience TE9800	
Communications Systems Technology Pathway	Fundamentals of Technology TE1905**	Communications Systems I TE1951 or Digital Imaging Technology TE1953	Communications Systems II TE1952 or Video Editing Technology TE1959	Occupational & Career Experience TE9800	Intro to Drafting/Design Technology TE0220 or Intro to Architectural Drafting/Design TE0224 or Intro to Electronic Drafting/Design TE0226 or Intro to Structural Drafting/Design TE0228 or Technical Illustration Technology TE0230 or Graphic Design Technology TE0240 or Intro to Computer Aided Drafting/Design TE0303

** Exploring Technology TE 1901 cannot be taken in lieu of Fundamentals of Technologies TE 1905. TE 1905 is the prerequisite course for the Technology Education Program of Study. TE 1905 may be taken during the 10th grade instead of 9th.

PRE-ENGINEERING CLUSTER (PLTW) PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a *senior* student who, as either a junior or senior, has completed the **minimum four year** program of study and taken and passed the aligned capstone course.

Typical Programs of Study with **Capstone** course:

	Grade 9 (semester/ trimester/year)	Grade 10 (semester/ trimester/year)	Grade 11 (semester/ trimester/year)	Grade 12 (semester/ trimester/year)	Other Pre- Engineering Accepted Courses
Computer Integrated Manufacturing Pathway	Intro To Engineering Design TE1502	Principals of Engineering TE1501	Computer Integrated Manufacturing TE1510 and Digital Electronics** TE1503	Engineering Design & Development TE1525	
Aerospace Engineering Pathway	Intro To Engineering Design TE1502	Principals of Engineering TE1501	Aerospace Engineering TE1526 and Digital Electronics** TE1503	Engineering Design & Development TE1525	
Civil Engineering & Architecture Pathway	Intro To Engineering Design TE1502	Principals of Engineering TE1501	Civil Engineering & Architecture TE1520 and Digital Electronics** TE1503	Engineering Design & Development TE1525	
Biotechnical Engineering Pathway	Intro To Engineering Design TE1502	Principals of Engineering TE1501	Biotechnical Engineering TE1527 and Digital Electronics** TE1503	Engineering Design & Development TE1525	

** Digital Electronics can be taken during the 10th grade year instead of the 11th grade year based on schedule.

TECHNOLOGY EDUCATION

TE 1901 IBED 21051	EXPLORING TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
<p>A course designed to introduce students to basic technological principles, processes, and skills such as design and problem solving, team decision making, information gathering, and safety. A systems model of communication, manufacturing, power/energy and transportation and construction is presented. Students are exposed to sketching, technical drawing, screen printing, logo and poster development, building of model rockets and bridges, experimentation with computer-assisted graphics, computer-aided design software, electronic devices, and video production. The course is designed to develop an appreciation of technical fields and occupations while learning about skills essential to these systems.</p>		
TE 1905 IBED 21052	FUNDAMENTALS OF TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
<p>Fundamentals of Technology is a prerequisite course for most of the Technology Education systems. Communication skills and tools are the major focus of this course. These same skills are central to all subsequent technology courses. The computer and other electronic devices are necessary for teaching an understanding of contemporary communications, manufacturing, power/energy/transportation and construction systems. An engineering focus of problem solving requires students to define a given problem, conduct appropriate research, develop solutions to the problem, construct prototypes, and evaluate their work.</p> <p>This course is designed to introduce students to those principles and skills used in subsequent technology courses. Students learn to sketch solutions to problems, create technical drawings and presentations, build models, and apply creative problem solving methods. Emphasis is placed on accessing and communicating information, using simple and complex tools in a safe manner, and increasing the students' awareness of the historical and contemporary implications of technology. Students are introduced to computer-aided graphics, design software, and computer-aided manufacturing. Students develop an understanding of the tools, techniques, and processes of technology using design principles, computers, problem solving and model making.</p>		
TE 0220 IBED 21102	INTRODUCTION TO DRAFTING/DESIGN TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
<p>An entry level course in Communications Systems which addresses the concepts needed to transfer ideas into easily understood graphic languages, designs or drawings. The use of drawing tools, including mechanical devices and computer software, are essential for student studies. Each of the major areas of drafting and design should be explored on an introductory level.</p>		
TE 0222 IBED 21106	INTRODUCTION TO MECHANICAL DRAFTING/DESIGN Semester/Trimester	(One semester/trimester minimum)
<p>A course in Manufacturing Systems designed to develop students' basic entry level skills in the development of multi-view and pictorial drawings. Instruction includes work on detailed drawings, gears and cams, sectioning, threads/fasteners and piping. ANSI standards will be incorporated into each assignment. Training must include the use of computer applications.</p>		
TE 0224 IBED 21103	INTRODUCTION TO ARCHITECTURAL DRAFTING/DESIGN Semester/Trimester	(One semester/trimester minimum)
<p>An entry level course in Communications Systems designed to prepare students with basic skills that support the fields of architectural development. Architectural drawings include assignment that relate to residential, light commercial, marine and aerospace-related structures. Training must include the use of computer applications.</p>		

TE 0226 IBED 21105	INTRODUCTION TO ELECTRONIC DRAFTING/DESIGN Semester/Trimester	(One semester/trimester minimum)
An entry level course in Communications Systems designed to prepare students with skills in drawing and designing electronic circuits, schematic diagrams for series and parallel circuits. Assignments should encourage the actual development of the circuit upon completing the drawing. Training must include the use of computer applications.		
TE 0228 IBED 21104	INTRODUCTION TO STRUCTURAL DRAFTING/DESIGN Semester/Trimester	(One semester/trimester minimum)
An entry level course in Communications Systems covering the basic areas of civil, structural and aerospace engineering. Students will develop plans which include the application of wood, steel, concrete and composite materials. Assignments will include drawings and model development of roads, bridges, and towers, marine structures, piping systems, trusses and aerospace structures. Compiling a bill of material, completing a structural analysis and using computer applications are viable components of this course.		
TE 0230 IBED 11153	TECHNICAL ILLUSTRATION TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
An entry level course in Communications Systems in which students will explore and develop basic skills in shading/rendering, water color applications, overlays, airbrush techniques and computer design. Student work will involve renderings in mechanical, architectural, structural and aerospace-related objects and structures. Assignments should be of display/presentation quality.		
TE 0240 IBED 11155	GRAPHIC DESIGN TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
An entry level course in Communications Systems that explores modern graphic techniques and the basic skills needed for graphic printing. The use of electronic devices and computers to help in the production of graphic materials is a main component. Student assignments will also include the basic operations used in graphic layouts and offset press work.		
TE 0303 IBED 21107	INTRODUCTION TO COMPUTER AIDED DRAFTING/DESIGN Semester/Trimester	(One semester/trimester minimum)
An entry level course in Communications Systems designed to provide students with an understanding of the operation and features of a current industrial computer aided drafting/design (CADD) system. Emphasis is placed on the application of computer software in solving basic architectural, structural, electronic or mechanical drafting problems. The purpose of the course is to assist individuals in making meaningful occupational and educational choices. Basic technical information and laboratory experiences directly related to the operation and application of computer software is provided in a hands-on approach. This course is selected by a district in lieu of the series of Introductory courses TE 0220-TE 0228.		
TE 0402 IBED 21010	COMPUTER AIDED MANUFACTURING [CAM] TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
This course in Manufacturing Systems explores the role of computers and automation in the technological age. Students enrolled in Computer Aided Manufacturing [CAM] will study the major manufacturing applications of the computer, numerical control, computerized numerical control, computer interface and flexible manufacturing systems. Activities in Robotics and Computer Instructed Manufacturing [CIM] will be introduced in this course.		
TE 0501 IBED 17106	INTRODUCTION TO ELECTRONICS TECHNOLOGY Semester/Trimester	(One semester/trimester minimum)
An entry level course in Power, Energy and Transportation Systems which provides critical information about the vast number of Electrical/Electronic Technological applications important to		

daily living. Primary instruction will center on the major Laws of electronics with simple circuits and electronic components found in industrial and consumer equipment and appliances. Introduction to Electronics Technology provides the flexibility for many laboratory activities that reflect the technical and social nature of our modern society.

TE 0502
IBED 17106

ELECTRONICS APPLICATIONS

Semester/Trimester

(Highly recommended for one full year/ 2 trimesters)
Prerequisite: **Introduction to Electronics Technology**
TE 0501

This is an advanced level course in electronics that covers theory and application of electronic principles and practices. Students will be expected to design, build and troubleshoot circuits and electronic components. This course will serve as the first level course for Engineering and Intestinal Systems programs. Significant laboratory time is required to offer the students the skills necessary to complete advanced level assignments on working models and training devices.

TE 1920
IBED 17002

CONSTRUCTION SYSTEMS I

Semester/Trimester

Prerequisite: **Fundamentals of Technology**
TE 1905

Construction Systems I is a comprehensive course involving a multitude of applications in the construction field and is designed for a broad approach to the field of study. Some schools may choose to offer this course in lieu of TE 1922. The course is designed to introduce classical and contemporary elements, principles and processes of structural systems. Architectural and engineering subjects are studied through research, design, project development and assessment. Students explore the relationship of materials, form, function, and culture of notable past and present structures through practical applications and modeling techniques.

TE 1921
IBED 17002

CONSTRUCTION SYSTEMS II

Semester/Trimester

Prerequisites: **Construction Systems I**
TE 1920

Construction Systems II is a comprehensive course involving a multitude of applications in the construction fields and is designed for a broad approach to the field of study. Some schools may choose to offer this course in lieu of TE 1923. Students of Construction Systems II continue their study of structural systems through research, developing solutions, creating designs, building models and critiquing their work. Working individually and as team members, students apply the skills and insights from the previous course to pursue progressively demanding concepts and relationships of structural systems. Advanced level students are given greater freedom to explore individual topics of interest within the area of structural systems.

TE 1922
IBED 17007

INTRODUCTION TO CABINETRY

Semester/Trimester

Prerequisite: **Fundamentals of Technology**
TE 1905

This course is provided as a base level for students interested in careers in construction but more specifically for finish carpentry. Students will be given opportunities to build basic cabinet style models and learn finishing and staining techniques. Projects developed in this class may be craft related and are usually designed so that students learn how to properly use the equipment commonly found in commercial cabinetmaking businesses.

TE 1923
IBED 17007

ADVANCED CABINETRY

Full Year/ 2 Trimester

Prerequisites: **Introduction to Cabinetry**
TE 1922

Students taking this course are exposed to advanced woodworking applications and specialized equipment commonly found in industrial shops. Tables, curios, desks, and residential furnishings will be constructed. Specialized finishing techniques will be taught with emphasis on accuracy and detail of the finished product. Design, function, and durability of the product will be established as outcomes for the course.

TE 1931
IBED 13002

MANUFACTURING SYSTEMS I
Semester/Trimester

Prerequisite: **Fundamentals of Technology
TE 1905**

Manufacturing Systems I is a comprehensive course involving a multitude of applications in the manufacturing fields and is designed for a broad approach to the field of study. Some schools may choose to offer this course in lieu of TE 1933. A course designed for students to study general concepts and principles of manufacturing systems. Working individually and in teams, students design products, develop and conduct market surveys, develop financial and personnel strategies, advertise, market, and produce products using contemporary manufacturing methods. The course is designed for students interested in product design, creative problem solving, creation of prototypes, computer-assisted design and manufacturing, basic entrepreneurial skills, and engineering concepts. (Concepts covered in TE 0222 are provided in this course, along with basic manufacturing practices)

TE 1932
IBED 13002

MANUFACTURING SYSTEMS II
Full Year/2 Trimesters

Prerequisite: **Manufacturing Systems I
TE 1931**

Manufacturing Systems II is a comprehensive course involving a multitude of applications in the manufacturing fields and is designed for a broad approach to the field of study. Some schools may choose to offer this course in lieu of TE 1934. Manufacturing Systems II continues to build on the knowledge and skills gained from Manufacturing Systems I. Students pursue more detailed and integrated manufacturing and production projects and will study and design manufacturing systems. Students continue to use creative problem solving skills, design tools and processes, and apply manufacturing techniques with increasing sophistication. Projects are designed and produced using computer-assisted manufacturing applications, computer numerically-controlled machines and robotics. This course has been developed for students pursuing careers in manufacturing as a designer, drafter, industrial manager, technician or engineer. (Includes instruction offered in TE 0402)

TE 1933
IBED 21009

INTRODUCTION TO ROBOTICS
Semester/Trimester

Prerequisite: **Fundamentals of Technology
TE 1905**

This is an introductory course in the design, use and technology of robots commonly found in industrial and consumer applications. Students will design model robots using mechanical devices and explore computer controlled applications. Applications of specialized materials and composites will be studied to determine structural and durability characteristics. Electronic components and electro-mechanical devices will be studied and used in model development. Basic programming languages will be introduced.

TE 1934
IBED 21009

ROBOTICS APPLICATIONS
Semester/Trimester

Prerequisites: **Introduction to Robotics
TE 1933**

Advanced level design and applications of robots in industrial and consumer markets will be explored. Students will design multi-level robotic applications for use in manufacturing, transportation, storage and handling, chemical, biological and other industrial areas. Sophisticated electronics circuitry and advanced type materials and composites will be used in the design and construction of working models. Student will program industrial-type robots and design manufacturing models that will distinguish between materials, shapes, quality, and other characteristics of products to be sorted and stored. Transportation models and consumer robots may be designed and studied as an alternative to manufacturing applications.

TE 1940
IBED 20101

POWER/ENERGY AND TRANSPORTATION SYSTEMS I
Semester/Trimester

Prerequisite: **Fundamentals of Technology
TE 1905**

Power/Energy and Transportation Systems I is a comprehensive course involving a multitude of applications in the transportation, power and energy fields and is designed for a broad approach to the field of study. Students enrolled in this course will explore sources, storage, transportation, consumption, control, environmental impacts, and conservation of power, energy and transportation. Land, ground effects, water, air, space and inter-modal transportation systems will be explored with practical activities emphasizing relevant scientific and engineering concepts. Activities include defining problems, designing prototypes, using computer-assisted applications, constructing models,

and testing prototypes using appropriate tools such as wind tunnels and performance tests.

TE 1941
IBED 20101

POWER/ENERGY AND TRANSPORTATION SYSTEMS II
Semester/Trimester Prerequisite: **Power/Energy and Transportation Systems I**
TE 1940

Power/Energy and Transportation Systems II is an advanced level comprehensive course involving a multitude of applications in the transportation, power and energy fields and is designed for a broad approach to the field of study. Students will continue to build on their knowledge of transportation systems by experimenting with increasingly complex systems and concepts. Guidance, inter-modal and urban transportation systems are explored. Students continue to seek solutions to problems through research and design, prototype development and experimentation. Students perform technological assessments on transportation topics of interest.

TE 1951
IBED 11002

COMMUNICATION SYSTEMS I
Semester/Trimester Prerequisite: **Fundamentals of Technology**
TE 1905

Communication Systems I is a comprehensive course involving a multitude of applications in the energy and transportation fields and is designed for a broad approach to the field of study. Some schools may choose to offer this course in lieu of TE 0222. This is a course designed to develop an understanding of contemporary communication principles and devices. Students develop graphic and electronic communication projects through the use of various media. Activities typically include engineering and technical concepts of sketching, drafting, screen printing, computer-assisted graphics, technical presentations, photography, audio and video production. Students learn to apply the elements of good design to communication products.

TE 1952
IBED 11002

COMMUNICATION SYSTEMS II
Semester/Trimester Prerequisite: **Communication Systems I**
TE 1951

Communication Systems II is a comprehensive course involving a multitude of applications in the energy and transportation fields and is designed for a broad approach to the field of study. Communication Systems II uses the skills and insights gained from Communication Systems I. Students develop detailed and integrated communication projects and concepts. Students produce a variety of technical presentations using telecommunications, computer applications, graphics, and photography. This course is designed for students planning to enter business, education, marketing, sales, and advertising or planning to major in science, engineering, or technical fields related to communications.

TE 1953
IBED 11054

DIGITAL IMAGING TECHNOLOGY
Semester/Trimester Prerequisite: **Fundamentals of**
Technology
TE 1905

This course is offered to students who wish to pursue careers in the field of photography and computer graphics. Studies will include the design and manipulation of images to develop communications media and productions. Still and motion images will be developed, printed, copied, edited and/or projected in a studio environment or presentation format. Emphasis will be placed on industrial applications of digital imagery.

TE 1959
IBED 11055

VIDEO EDITING TECHNOLOGY
Semester/Trimester Prerequisite: **Digital Imaging Technology**
TE 1953

This course is offered to students who wish to pursue careers in the broadcast industry and related telecommunications fields. Students will be required to make videos and edit the material to make a comprehensive presentation on specific topics. Common tape formats and digital applications will be studied with specific emphasis on commercial applications. The course may involve preparing video for sporting events, drama, and closed circuit television broadcasts. Story boarding and script development are integral components of the course.

TE 9800

OCCUPATIONAL AND CAREER EXPERIENCE

IBED 21098

Semester/Trimester

A community based work experience activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objectives of the student. The experiences must be monitored by the teacher. (Note: This course must be approved by the State Division.)

PRE- ENGINEERING

TE 1501

IBED 21004

PRINCIPALS OF ENGINEERING

Semester/Trimester

Prerequisite: **Introduction to Engineering Design
TE 1502**

A course that helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes helps students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequences of technological change.

TE 1502

IBED 21006

INTRODUCTION TO ENGINEERING DESIGN

Semester/Trimester

A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

TE 1503

IBED 21008

DIGITAL ELECTRONICS

Semester/Trimester

Prerequisite: **Introduction to Engineering Design
TE 1502**

A course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

TE 1510

IBED 21010

COMPUTER INTEGRATED MANUFACTURING

Semester/Trimester

Prerequisite: **Principals of Engineering
TE 1501**

A course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included.

TE 1520

IBED 21012

CIVIL ENGINEERING AND ARCHITECTURE

Semester/Trimester

Prerequisite: **Principals of Engineering
TE 1501**

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. The course covers topics such as: the roles of Civil Engineers and Architects; project planning; site planning; building design; project documentation; and, presentation.

TE 1525

IBED 21007

ENGINEERING DESIGN AND DEVELOPMENT

Semester/Trimester

Prerequisite: **Principals of Engineering
TE 1501**

An engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year.

TE 1526
IBED 21013

AEROSPACE ENGINEERING
Semester/Trimester

Prerequisite: **Principals of Engineering
TE 1501**

Through hands-on engineering projects developed with NASA, students learn about aerodynamics, astronautics, space-life sciences, and systems engineering (which includes the study of intelligent vehicles like the Mars rovers Spirit and Opportunity).

TE 1527
IBED 21014

BIOTECHNICAL ENGINEERING
Semester/Trimester

Prerequisite: **Principals of Engineering
TE 1501**

Relevant projects from the diverse fields of bio-technology, bio-engineering, bio-medical engineering, and bio-molecular engineering enable students to apply and concurrently develop secondary-level knowledge and skills in biology, physics, technology, and mathematics.

INFORMATION SYSTEMS TECHNOLOGY
PROFESSIONAL-TECHNICAL APPROVED COURSES
Grades 9-12

10003 TI 0550 Introduction to Network Support/Info Support/Interactive Media/Program Development

Network Support Pathway

10252 TI 0551 Computer Support Essentials/A+/Helpdesk Basic IT
 10101 TI 0600 Network Basics/CCNA 1/2
 10102 TI 0607 Network Support/CCNA 3/4

Information Support Pathway

10252 TI 0551 Computer Support Essentials/A+/Helpdesk Basic IT
 10004 TI 0604 Applications Specialist
 10004 TI 0609 Applications Management

Web & Digital Communications Pathway

10201 TI 0555 Principles of Web Design
 10202 TI 0605 Principles of Visual Design
 10203 TI 0606 Principles of Video Design
 10202 TI 0608 Media Applications

Programming Development Pathway

10152 TI 0557 Programming Fundamentals
 10156 TI 0558 Advanced Programming
 10199 TI 0610 Software Applications

Internship/Occupational Career Experience

10097 TI 0611 Projects in Information Technology
 11048 TI 9855 Occupational & Career Experience – Information Systems Technology

OTHER COURSES AND ASSIGNMENTS

22850 PR 0001 Preparation Period
 None 00 0000 No Class or Activity
 None AC 0017 All other courses/Activities
 None AC 0019 Other Professional-Technical Courses

INFORMATION SYSTEMS TECHNOLOGY CLUSTER PROGRAMS OF STUDY & CAPSTONE COURSES

For Performance Measures and follow-up purposes, a Program Completer is defined as a **senior** student who, as either a junior or senior, has completed the **minimum two year** program of study and taken and passed the aligned capstone course.

Typical Programs of Study with **Capstone** course:

	Grade 9 (semester/ trimester/year)	Grade 10 (semester/ trimester/year)	Grade 11 (semester/ trimester/year)	Grade 12* (semester/ trimester/year)	Other IST accepted Courses
Network Support Pathway	Intro to Network/Info/ Interactive/ Program TI 0550	Computer Support/ A+/Helpdesk TI 0551	Network Basics/ CCNA 1/2 TI 0600	Network Support/ CCNA 3/4 TI 0607 and/or	Projects in IT TI 0611 or Occup & Career Exp for IST TI 9855
Information Support Pathway	Intro to Network/Info/ Interactive/ Program TI 0550	Computer Support/ A+/Helpdesk TI 0551	Applications Specialist TI 0604	Applications Management TI 0609	Projects in IT TI 0611 or Occup & Career Exp for IST TI 9855
Interactive Media Pathway	Intro to Network/Info/ Interactive/ Program TI 0550	Principles of Web Design TI 0555 And/or Principles Visual Design TI 0605 And/or Principles of Video Design TI 0606	Media Applications TI 0608	Projects in IT TI 0611 or Occup & Career Exp for IST TI 9855	Projects in IT TI 0611 or Occup & Career Exp for IST TI 9855
Programming Development Pathway	Intro to Network/Info/ Interactive/ Program TI 0550	Programming Fundamentals TI 0557	Advanced Programming TI 0558	Software Applications TI 0610	Projects in IT TI 0611 or Occup & Career Exp for IST TI 9855

TI 0611- Projects in IT or TI 9855- Occupational and Career Experience for IST may be substituted or added to the Program of Study during the Junior and/or Senior year for added development.

INFORMATION SYSTEMS TECHNOLOGY

This section incorporates all the aspects of networking, computer repair, maintenance and related web instructional courses that are offered in Idaho schools. Idaho does not recognize the older titles for the Information Systems Technology areas such as TST, INT, or ICT. These are all now incorporated into the IST label. Local districts will be able to determine what mix of courses best fit their community's needs and select those from the following list of courses. Most advanced level programs will continue to follow a specific industry training sequence such as the Cisco path but smaller schools may opt for the Net+ or A+ level of instruction.

The instructor must have appropriate certification in Networking+, I-Net+, A+, IC3 or other industry standards such as Cisco or Oracle that are recognized by CompTIA to be able to teach these courses. PTE certification code 6153 must also be held for funding approval.

TI 0550
IBED 10003 INTRODUCTION TO NETWORK SUPPORT/INFO SUPPORT/INTERACTIVE
MEDIA/PROGRAM DEVELOPMENT
Semester/Trimester/Year

This course is a survey of computer technologies. This course may include ethics of computer and network use, web design, introduction to graphics, animation, computer hardware and operating systems, elementary networking, troubleshooting and programming. (The student should have prior knowledge of an "office suite" to include but not be limited to word processing, spreadsheet, database and presentation software.)

TI 0551
IBED 10252 COMPUTER SUPPORT ESSENTIALS/A+/HELPDESK BASIC INFORMATION TECHNOLOGIES
Semester/Trimester/Year Prerequisite: Introduction to
Information Technologies

This course maps to Comptia A+ computer maintenance and repair industry certification. Students may choose to certify in any of the following areas: IT Technician, Remote Support Technician or Depot Technician. This course may be taken in either the Network Support Pathway or Information Support Pathway.

TI 0555
IBED 10201 PRINCIPALS OF WEB DESIGN
Semester/Trimester/Year Prerequisite: Introduction to
Information Technologies

This course will provide a framework for best practices in web design. Students will learn the nature of usable websites, designing for aesthetic appeal, performing usability studies, information architecture, designing for accessibility, and technical issues. Adobe or Macromedia Suites.

TI 0557
IBED 10152 PROGRAMMING FUNDAMENTALS
Semester/Trimester/Year Prerequisite: Introduction to
Information Technologies

This course introduces the student to programming, including but not limited to, decision structures, functions, object-oriented coding, procedures, variables and sub-routines. Examples: Introductory Visual Basic, JavaScript, etc. Oracle fundamentals would be a logical option in this course.

TI 0558
IBED 10156 ADVANCED PROGRAMMING
Semester/Trimester/Year Prerequisite: Programming Fundamentals

Students will plan and create interactive GUI applications. Course topics may include, but are not limited to, database information management, reports, interaction with other platforms/applications, Internet related controls, database design, or virtual environment programming.

TI 0600
IBED 10101 NETWORK BASICS/CCNA 1/2
Semester/Trimester/Year Prerequisite: Computer Support Essentials

This course covers LAN segmentation using routers, basic router configurations, LAN switching theory, virtual LANs, and basic LAN design technologies. The course also introduces WAN theory and design, WAN technology, encapsulation methods, and network troubleshooting. Maps to CCNA 1 and 2 and/or Comptia Network+ industry certification.

TI 0604 IBED 10004	APPLICATIONS SPECIALIST Semester/Trimester/Year	
	Database, desktop support, and applications support.	
TI 0605 IBED 10202	PRINCIPLES OF VISUAL DESIGN Semester/Year	Prerequisite: Introduction to Information Technologies
	<i>Visual Design</i> develops key digital communication skills: design, communication, project management, and web, graphic and print technology. Key skills are developed in a spiral as each project adds more challenging skills on foundation proficiencies.	
TI 0606 IBED 10203	PRINCIPLES OF VIDEO DESIGN Semester/Year	Prerequisite: Introduction to Information Technologies
	The <i>Digital Video</i> curriculum develops knowledge in storytelling, capturing and editing video and audio, and finalizing content for DVD or web through emphasis on design, communication, project management, and video technology.	
TI 0607 IBED 10102	NETWORK SUPPORT/CCNA 3/4 Semester/Trimester/Year	Prerequisite: Network Basics/CCNA 1/2
	This course covers LAN segmentation using routers, advanced router configurations, LAN switching theory, virtual LANs, and advanced LAN design technologies. The course also introduces WAN theory and design, WAN technology, encapsulation methods, and network troubleshooting. Server security. Maps to CCNA 3 and 4.	
TI 0608 IBED 10202	MEDIA APPLICATIONS Semester/Year	Prerequisite: Princ of Web/Visual/Video
	Student produced media product. Digital media may include but is not limited to animation, sound, video, print, photography, and web. Industry software such as, but not limited to Adobe suites may be utilized.	
TI 0609 IBED 10004	APPLICATIONS MANAGEMENT Semester/Trimester/Year	
	Application administration.	
TI 0610 IBED 10199	SOFTWARE APPLICATIONS Semester/Trimester/Year	
	Designing original software programs.	
TI 0611 IBED 10097	PROJECTS IN INFORMATION TECHNOLOGY Semester/Trimester/Year	
	Applied project or study in network support, information systems, interactive media, or software development.	
TI 9855 IBED 11048	OCCUPATIONAL & CAREER EXPERIENCE FOR INFORMATION SYSTEMS TECHNOLOGY	
	A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.	

SKILLED and TECHNICAL SCIENCES
PROFESSIONAL-TECHNICAL APPROVED COURSES

Transportation Trades Cluster

IBEDS

20102	TI 0200	Fundamentals of Mechanical Technology
Aviation Technologies		
20053	TI 0922	Introduction to Aviation Careers
20053	TI 0923	Intermediate Aviation Technologies
20053	TI 0924	Advanced Aviation Technologies
20098	TI 9892	Occupational & Career Experience – Aviation Technologies
Small Engine Repair		
20110	TI 1201	Small Engine Repair Level I
20110	TI 1202	Small Engine Repair Level II
20110	TI 1203	Small Engine Repair Level III
20148	TI 9812	Occupational & Career Experience – Small Engine Repair
Auto Body (Collision Repair) Technology		
20116	TI 0101	Auto Body (Collision Repair) Technology Level I
20116	TI 0102	Auto Body (Collision Repair) Technology Level II
20116	TI 0103	Auto Body (Collision Repair) Technology Level III
20148	TI 9801	Occupational & Career Experience – Auto Body Technology
Automotive Technology		
20104	TI 0201	Automotive Technology Level I
20104	TI 0202	Automotive Technology Level II
20104	TI 0203	Automotive Technology Level III
20148	TI 9802	Occupational & Career Experience – Automotive Technology
Heavy Equipment/Diesel		
20112	TI 0601	Heavy Equipment/Diesel Level I
20112	TI 0602	Heavy Equipment/Diesel Level II
20112	TI 0603	Heavy Equipment/Diesel Level III
20148	TI 9806	Occupational & Career Experience – Heavy Equipment/Diesel
Industrial Mechanics		
13302	TI 0801	Industrial Mechanics Level I
13302	TI 0802	Industrial Mechanics Level II
13302	TI 0803	Industrial Mechanics Level III
13358	TI 9808	Occupational & Career Experience – Industrial Mechanics

Architecture and Construction Cluster

Architectural Drafting		
21101	TI 0301	Introduction to Drafting Level I
21103	TI 0302	Architectural Drafting Level II
21103	TI 0303	Architectural Drafting Level III
21107	TI 0904	Drafting – 3D Modeling/Senior Design
21148	TI 9803	Occupational & Career Experience – Architectural Drafting
Mechanical Drafting		
21101	TI 0301	Introduction to Drafting Level I
21106	TI 0902	Mechanical Drafting Level II
21106	TI 0903	Mechanical Drafting Level III
21107	TI 0904	Drafting – 3D Modeling/Senior Design
21148	TI 9809	Occupational & Career Experience – Mechanical Drafting

Residential Carpentry/Building Construction

17003	TI 1101	Residential Carpentry/Building Construction Level I
17003	TI 1102	Residential Carpentry/Building Construction Level II
17003	TI 1103	Residential Carpentry/Building Construction Level III
17048	TI 9811	Occupational & Career Experience – Residential Carpentry/Building Construction

Masonry

17008	TI 1104	Masonry Level I
17008	TI 1105	Masonry Level II
17008	TI 1106	Masonry Level III
17048	TI 9811	Occupational & Career Experience – Residential Carpentry/Building Construction

Home Technology Integration

17009	TI 1107	Home Technology Integration Level I
17009	TI 1108	Home Technology Integration Level II
17048	TI 9811	Occupational & Career Experience – Residential Carpentry/Building Construction

Cabinetmaking and Millwork

17007	TI 0401	Cabinetmaking and Millwork Level I
17007	TI 0402	Cabinetmaking and Millwork Level II
17007	TI 0403	Cabinetmaking and Millwork Level III
17048	TI 9804	Occupational & Career Experience – Cabinetmaking and Millwork

Engineering Technology and Manufacturing Cluster**Electronic Technology**

17106	TI 0501	Basic Electronics Technology
17106	TI 0502	Intermediate Electronics Technology
17106	TI 0503	Advanced Electronics Technology
21150	TI 9805	Occupational & Career Experience - Electronics

Precision Machining

13203	TI 1001	Precision Machining Level I
13203	TI 1002	Precision Machining Level II
13203	TI 1003	Precision Machining Level III
13258	TI 9810	Occupational & Career Experience – Precision Machining/Automated Manufacturing

Automated Manufacturing

13204	TI 1004	Automated Manufacturing Level I
13204	TI 1005	Automated Manufacturing Level II
13204	TI 1006	Automated Manufacturing Level III
13258	TI 9810	Occupational & Career Experience – Precision Machining/Automated Manufacturing

Metals Fabrication Technology

13055	TI 1404	Introduction to Metal Fabrication
13055	TI 1405	Intermediate Metal Fabrication and Design
13055	TI 1406	Advanced Metal Fabrication
13359	TI 9814	Occupational & Career Experience – Welding/Metal Fabrication

Welding Technology

13207	TI 1401	Welding Level I
13207	TI 1402	Welding Level II
13207	TI 1403	Welding Level III
13359	TI 9814	Occupational & Career Experience – Welding/Metal Fabrication

Media Technologies Cluster**Broadcast Technologies**

11001	TI 0700	Media Technologies Fundamentals
11103	TI 1701	Broadcast/Video Technologies Level I
11103	TI 1702	Broadcast/Video Technologies Level II
11103	TI 1703	Broadcast/Video Technologies Level III
11148	TI 9807	Occupational & Career Experience – Media Technologies

Graphics Communications

11001	TI 0700	Media Technologies Fundamentals
11153	TI 0701	Graphic Communications Level I
11153	TI 0702	Graphic Communications Level II
11153	TI 0703	Graphic Communications Level III
11198	TI 9807	Occupational & Career Experience – Media Technologies

Journalism Technology

11001	TI 0700	Media Technologies Fundamentals
11102	TI 0710	Beginning Journalism Level I
11104	TI 0711	News Production Level II
11104	TI 0712	News Production Level III
11104	TI 0716	Newspaper/Yearbook Level IV
11148	TI 9807	Occupational & Career Experience – Media Technologies
11001	TI 0700	Media Technologies Fundamentals
11104	TI 0713	Yearbook Production Level I
11104	TI 0714	Yearbook Production Level II
11104	TI 0715	Yearbook Production Level III
11104	TI 0716	Newspaper/Yearbook Level IV
11148	TI 9807	Occupational & Career Experience – Media Technologies

Commercial Photography

11001	TI 0700	Media Technologies Fundamentals
11052	TI 1601	Photography Level I
11052	TI 1602	Photography Level II
11052	TI 1603	Photography Level III
11148	TI 9807	Occupational & Career Experience – Media Technologies

Public Service and Environmental Cluster**Cosmetology Technology**

19104	TI 1501	Introduction to Cosmetology
19104	TI 1502	Intermediate Cosmetology
19104	TI 1503	Advanced Cosmetology
19148	TI 9815	Occupational & Career Experience – Cosmetology

Law Enforcement/Criminal Justice

15051	TI 1801	Orientation to Police, Fire, and Emergency Services
15051	TI 1802	Law Enforcement, Detention, and Corrections I
15051	TI 1803	Law Enforcement, Detention, and Corrections II
15248	TI 9818	Occupational and Career Experience – Law Enforcement/Criminal Justice

Environmental Science Technology

18505	TI 1901	Introduction to Environmental Science Technology
18505	TI 1902	Environmental Science Technology Applications
18505	TI 1903	Advanced Environmental Applications/Internships
18997	TI 9819	Occupational & Career Experience – Environmental Science Technology

OTHER COURSES AND ASSIGNMENTS

22850	PR 0001	Preparation Period
None	00 0000	No Class or Activity
None	AC 0017	All other courses/Activities
None	AC 0019	Other Professional-Technical Courses

SKILLED and TECHNICAL SCIENCES PROGRAMS OF STUDY & CAPSTONE COURSES

For performance measures and follow-up purposes, a program completer is defined as: A *senior* student who, as either a junior or senior, has taken a capstone course. Capstone classes are denoted by **shaded cells**.

Transportation Trades Cluster

	Grade 9	Grade 10	Grade 11	Grade 12
Aviation Technologies		Introduction to Aviation Careers TI 0922	Intermediate Aviation Technologies TI 0923	Advanced Aviation Technologies TI 0924
				Occupational & Career Experience - Aviation Technologies TI 9892
Small Engine Repair		Small Engine Repair Level I TI 1201	Small Engine Repair Level II TI 1202	Small Engine Repair Level III TI 1203
				Occupational & Career Experience - Small Engine Repair TI 9812
Auto Body (Collision Repair) Technology		Auto Body (Collision Repair) Technology Level I TI 0101	Auto Body (Collision Repair) Technology Level II TI 0102	Auto Body (Collision Repair) Technology Level III TI 0103
				Occupational & Career Experience - Auto Body Technology TI 9801
Automotive Technology		Automotive Technology Level I TI 0201	Automotive Technology Level II TI 0202	Automotive Technology Level III TI 0203
				Occupational & Career Experience - Automotive Technology TI 9802
Heavy Equipment/Diesel		Heavy Equipment/Diesel Level I TI 0601	Heavy Equipment/Diesel Level II TI 0602	Heavy Equipment/Diesel Level III TI 0603
				Occupational & Career Experience - Heavy Equipment/Diesel TI 9806
Industrial Mechanics		Industrial Mechanics Level I TI 0801	Industrial Mechanics Level II TI 0802	Industrial Mechanics Level III TI 0803
				Occupational & Career Experience - Industrial Mechanics TI 9808

Architecture and Construction Cluster

	Grade 9	Grade 10	Grade 11	Grade 12
Architectural Drafting	Introduction to Drafting Level I TI 0301	Architectural Drafting Level II TI 0302	Architectural Drafting Level III TI 0303	Drafting – 3D Modeling/Senior Design TI 0904
				Occupational & Career Experience - Architectural Drafting TI 9803
Mechanical Drafting	Introduction to Drafting Level I TI 0301	Mechanical Drafting Level II TI 0902	Mechanical Drafting Level III TI 0903	Drafting – 3D Modeling/Senior Design TI 0904
				Occupational & Career Experience - Mechanical Drafting TI 9809

	Grade 9	Grade 10	Grade 11	Grade 12
Residential Carpentry/ Building Construction		Residential Carpentry/ Building Construction Level 1 TI 1101	Residential Carpentry/ Building Construction Level II TI 1102	Residential Carpentry/ Building Construction Level III TI 1103
				Occupational & Career Experience - Residential Carpentry/Building Construction TI 9811
Masonry		Masonry Level I TI 1104	Masonry Level II TI 1105	Masonry Level III TI 1106
				Occupational & Career Experience - Residential Carpentry/Building Construction TI 9811
Home Technology Integration		Home Technology Integration Level I TI 1107	Home Technology Integration Level II TI 1108	Occupational & Career Experience - Residential Carpentry/Building Construction TI 9811
Cabinetmaking and Millwork		Cabinetmaking and Millwork Level I TI 0401	Cabinetmaking and Millwork Level II TI 0402	Cabinetmaking and Millwork Level III TI 0403
				Occupational & Career Experience – Cabinetmaking and Millwork TI 9804

Engineering Technology and Manufacturing Cluster

	Grade 9	Grade 10	Grade 11	Grade 12
Electronic Technology		Basic Electronics Technology TI 0501	Intermediate Electronics Technology TI 0502	Advanced Electronics Technology TI 0503
				Occupational & Career Experience - Electronics TI 9805
Precision Machining		Precision Machining Level I TI 1001	Precision Machining Level II TI 1002	Precision Machining Level III TI 1003
				Occupational & Career Experience - Machining/Manufacturing TI 9810
Automated Manufacturing		Automated Manufacturing Level I TI 1004	Automated Manufacturing Level II TI 1005	Automated Manufacturing Level III TI 1006
				Occupational & Career Experience - Precision Machining/ Automated Manufacturing TI 9810
Metals Fabrication Technology		Introduction to Metal Fabrication TI 1404	Intermediate Metal Fabrication and Design TI 1405	Advanced Metal Fabrication TI 1406
				Occupational & Career Experience - Welding/Metal Fabrication TI 9814
Welding Technology		Welding Level I TI 1401	Welding Level II TI 1402	Welding Level III TI 1403
				Occupational & Career Experience - Welding/Metal Fabrication TI 9814

Media Technologies Cluster

	Grade 9 (semester/ trimester/ year)	Grade 9/10 (semester/ trimester/year)	Grade 10/11 (semester/ trimester/year)	Grade 11/12 (semester/ trimester/year)	Grade 12 (semester/ trimester/year)
Broadcast Technologies	Media Technologies Fundamentals TI 0700	Broadcast/Video Technologies Level I TI 1701	Broadcast/Video Technologies Level II TI 1702	Broadcast/Video Technologies Level III TI 1703	Occupational & Career Experience - Media Technologies TI 9807
Graphic Communications	Media Technologies Fundamentals TI 0700	Graphic Communications Level I TI 0701	Graphic Communications Level II TI 0702	Graphic Communications Level III TI 0703	Occupational & Career Experience - Media Technologies TI 9807
Journalism Technology	Media Technologies Fundamentals TI 0700	Beginning Journalism Level I TI 0710	News Production Level II TI 0711	News Production Level III TI 0712	Newspaper/ Yearbook Level IV TI 0716
					Occupational & Career Experience - Media Technologies TI 9807
	Media Technologies Fundamentals TI 0700	Yearbook Production Level I TI 0713	Yearbook Production Level II TI 0714	Yearbook Production Level III TI 0715	Newspaper/ Yearbook Level IV TI 0716
					Occupational & Career Experience - Media Technologies TI 9807
Commercial Photography	Media Technologies Fundamentals TI 0700	Photography Level I TI 1601	Photography Level II TI 1602	Photography Level III TI 1603	Occupational & Career Experience - Media Technologies TI 9807

* Media technology cluster programs that teach shorter, overview-type courses should use the Projects in Information Technology (TI 0611) and Occupational & Career Experience for Information Systems Technology class (TI 9855) as their capstones. Media technology cluster programs that delve deeper into a specific pathway may use their senior class and the Occupational & Career Experience – Media Technologies as their capstones classes.

Public Service and Environment Cluster

	Grade 9	Grade 10	Grade 11	Grade 12
Cosmetology Technology		Introduction to Cosmetology TI 1501	Intermediate Cosmetology TI 1502	Advanced Cosmetology TI 1503
				Occupational & Career Experience - Cosmetology TI 9815
Law Enforcement/ Criminal Justice		Orientation to Police, Fire, and Emergency Services TI 1801	Law Enforcement, Detention, and Corrections I TI 1802	Law enforcement, Detention, and Corrections II TI 1803
				Occupational & Career Experience – Law Enforcement/Criminal Justice TI 9818
Environmental Science Technology		Introduction to Environmental Science Technology TI 1901	Environmental Science Technology Applications TI 1902	Advanced Environmental Applications/Internships TI 1903
				Occupational & Career Experience – Environmental Science Technology TI 9819

SKILLED and TECHNICAL SCIENCES

All Skill and Technical Sciences programs must be certified by a National Certification Agency to meet basic reimbursement requirements. Programs require both instructor and program certification, as determined by the statewide technical committee for the program area. Examples are: AWS for welding and NATEF/ASE for automotive, diesel, and collision repair. The instructor must hold both industry certification and Skilled and Technical Sciences Professional-Technical Teacher Education certification.

Transportation Trades Cluster

TI 0200 FUNDAMENTALS OF MECHANICAL TECHNOLOGY
IBED 20102 Semester/Trimester

Prerequisite: None

A course designed to provide fundamental mechanical skills to students who are considering a career in the mechanical, industrial, agricultural, or related trades. It is intended to serve as a basic course, not as an occupational preparation course. Students completing this course will be able to enter any of the advanced mechanical related courses of study and will be familiar with welding, engines, drive trains, cooling, fuel, electrical, and suspension systems.

AVIATION TECHNOLOGIES

Aviation instruction is directed toward all aspects of aviation operations, including basic flight instruction. The primary objective for the program is to prepare students to enter the occupational field as airport management and operations personnel. The scope of instruction will cover airport operation, regulations, FAA directives, business and entrepreneurial practices, career choice, and aircraft controls. The instructor must be a certified flight instructor and operations certified. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6045.

TI 0922 INTRODUCTION TO AVIATION CAREERS
IBED 20053 Semester/Trimester

Prerequisite: None

This introductory course will provide students with the opportunity to study the broad range of career choices in the aviation industry, including commercial and private operations. Students may be allowed to take flight instruction as a separate and supplemental offering but will be taught the basic flight controls and general aircraft operation and maintenance. Introduction to the FAA guidelines governing ground and flight operations will be provided.

TI 0923 INTERMEDIATE AVIATION TECHNOLOGIES
IBED 20053 One Year

Prerequisite: Introduction to Aviation Careers

Students will be introduced to more advanced levels of understanding governing all aspects of the flight industry. Instruction on air and ground regulations for airport management and general operational practices will be provided. Metrology and other factors which relate to the field of operations will be studied. This is a year long course.

TI 0924 ADVANCED AVIATION TECHNOLOGIES
IBED 20053 Two Period Block Year

Prerequisite: Intermediate Aviation Technologies

Students will begin to specialize in various career choices in the aviation field. Special topics will be introduced using case studies of airline and aircraft operations including safe and unsafe situations for flight or passengers. Airport management will be studied, along with fixed based operations and other aspects of the field. Students may obtain their private pilot license in a separate component of the offering or may choose to enter into internships or similar occupational experiences with area flight operators.

TI 9892 OCCUPATIONAL & CAREER EXPERIENCE – AVIATION TECHNOLOGIES
IBED 20098 Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

SMALL ENGINE REPAIR

Small engine repair is a program designed to prepare students with skills to read service manuals; use microfiche and parts catalogs; use hand tools, power tools, and overhaul tools; service and recondition engines; troubleshoot and repair governors, speed controls, lubrication, ignition, fuel, power transfer, cooling exhaust, and starting systems. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe, efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6310.

TI 1201
IBED 20110

SMALL ENGINE REPAIR LEVEL I
Semester/Trimester/Year

Prerequisite: None

A course designed to introduce students to basic small engine repair. This will involve exploration, dis-assembly, and minor repair of various small engine equipment, and the use of tools and measurement devices. A study of two and four stroke cycles, cooling, and lubrication systems will be covered.

TI 1202
IBED 20110

SMALL ENGINE REPAIR LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Small Engine Repair Level I

A course designed to provide students with small engine repair applications. Students will be expected to diagnose and repair common equipment failures and make proper recommendations for maintenance of equipment to customers.

TI 1203
IBED 20110

SMALL ENGINE REPAIR LEVEL III
Two Period Block Year

Prerequisite: Small Engine Repair Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing to industry standards. Students should be familiar with all types of equipment, engines, and power trains associated with small engines This will include lawn and garden equipment as well as recreational equipment such a outboard engines, snowmobiles, motorcycles, watercraft, and industrial applications.

TI 9812
IBED 20148

OCCUPATIONAL & CAREER EXPERIENCE - SMALL ENGINE REPAIR
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

AUTO BODY (COLLISION REPAIR) TECHNOLOGY

Auto body (collision repair) technology is a program designed to prepare students with skills that include basic trade skills, refinishing, sheet metal repair, welding, thermoplastic and fiberglass repair, painting, electrical system, trim accessories and hardware, body, frame and suspension systems, estimating and preparation for delivery, and miscellaneous services. The course also includes training in applied communications, and employability skills including leadership, human relations, problem solving, critical thinking, and safe efficient work practices. Instructors must carry ASE certification credentials in four of the instructional areas and the program must be NATEF certified. The teacher must also be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education course work in addition to holding the industry certifications. The instructor certification code is # 6031.

TI 0101
IBED 20116

AUTO BODY (COLLISION REPAIR) TECHNOLOGY LEVEL I
Semester/Trimester/Year

Prerequisite: None

A course designed to introduce students to basic auto body (collision repair) technology.

TI 0102
IBED 20116

AUTO BODY (COLLISION REPAIR) TECHNOLOGY LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Auto Body (Collision Repair) Level I

A course designed to provide students with auto body (collision repair) technology applications including dent repair, alignment, and painting.

TI 0103
IBED 20116

AUTO BODY (COLLISION REPAIR) TECHNOLOGY LEVEL III
Two Period Block Year Prerequisite: Auto Body (Collision Repair) Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing to industry standards. Students will be given advanced level training in all aspects of collision repair including frame, body, electrical, plastics, painting, and finishing according to NATEF Standards.

TI 9801
IBED 20148

OCCUPATIONAL & CAREER EXPERIENCE - AUTO BODY TECHNOLOGY
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

AUTOMOTIVE TECHNOLOGY

Automotive technology is a program designed to prepare students with skills that include servicing and maintenance of all types of automobiles. Automotive technology includes instruction in the diagnosis of malfunctions in and repair of engines; engine performance and controls and emission controls, fuel, electrical, cooling, and brake systems; and drive train, and suspension systems. Also instruction is given in the adjustment, maintenance, replacement, and repair of individual components and systems. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. Instructors must carry ASE certification credentials in four of the eight instructional areas and the program must be NATEF certified. AYES schools must be certified in brakes, suspension and steering, electrical/electronics, and engine performance. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6032.

TI 0201
IBED 20104

AUTOMOTIVE TECHNOLOGY LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic automotive technology.

TI 0202
IBED 20104

AUTOMOTIVE TECHNOLOGY LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Automotive Technology Level I

A course designed to provide students with automotive technology applications.

TI 0203
IBED 20104

AUTOMOTIVE TECHNOLOGY LEVEL III
Two Period Block Year Prerequisite: Automotive Technology Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing to industry standards. Students are provided advanced level instruction according to NATEF Standards in the four areas of the program for which the program is certified.

TI 9802
IBED 20148

OCCUPATIONAL & CAREER EXPERIENCE - AUTOMOTIVE TECHNOLOGY
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

HEAVY EQUIPMENT/DIESEL

Heavy equipment/diesel is a program designed to prepare students with skills for the field maintenance of heavy equipment, and in general maintenance and overhaul of such equipment. Heavy equipment/diesel includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines, and in techniques of welding and brazing. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. Instructors must carry ASE certification credentials in four of the eight instructional areas and the program must be NATEF certified. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6120.

TI 0601
IBED 20112 HEAVY EQUIPMENT/DIESEL LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic heavy equipment/diesel applications.

TI 0602
IBED 20112 HEAVY EQUIPMENT/DIESEL LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Heavy Equipment/Diesel Level I

A course designed to provide students with heavy equipment/diesel applications.

TI 0603
IBED 20112 HEAVY EQUIPMENT/DIESEL LEVEL III
Two Period Block Year Prerequisite: Heavy Equipment/Diesel Level II

A course designed to provide students with team work, critical thinking, problem solving, diagnostics, and repairing to industry standards.

TI 9806
IBED 20148 OCCUPATIONAL & CAREER EXPERIENCE - HEAVY EQUIPMENT/DIESEL
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

INDUSTRIAL MECHANICS

Industrial mechanics is a program designed to prepare students with skills in shop practices, welding, basic machine shop, metal working, trouble shooting, rigging, equipment installation, maintenance, and repair for a variety of systems found in industrial operations including drive components, piping systems, pumps, hydraulic and pneumatic systems, electronic systems, and bearings and seals, as well as skills in the set-up and operation of preventive maintenance programs. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences Instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6109.

TI 0801
IBED 13302 INDUSTRIAL MECHANICS LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic industrial mechanics.

TI 0802
IBED 13302 INDUSTRIAL MECHANICS LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Industrial Mechanics Level I

A course designed to provide students with industrial mechanics applications.

TI 0803
IBED 13302 INDUSTRIAL MECHANICS LEVEL III
Two Period Block Year Prerequisite: Industrial Mechanics Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing to industry standards.

TI 9808
IBED 13358

OCCUPATIONAL & CAREER EXPERIENCE - INDUSTRIAL MECHANICS
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

Architecture and Construction Cluster

ARCHITECTURAL DRAFTING

Architectural drafting is a program designed to prepare student with skills to support architects and/or architectural engineers in developing plans for buildings or other structures, using a variety of building materials; in creating layouts and designs in keeping with building codes, zoning laws, ordinances, and other regulations; in styling and planning in keeping within cost limitations and client preferences; and in the use of computer assistance design equipment and materials. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6130.

TI 0301
IBED 21101

INTRODUCTION TO DRAFTING LEVEL I
Semester/Trimester/Year

Prerequisite: None

A course designed to introduce students to basic concepts in drafting, whether by board or computer-aided.

TI 0302
IBED 21103

ARCHITECTURAL DRAFTING LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Introduction to Drafting Level I

A course designed to provide students with architectural drafting applications.

TI 0303
IBED 21103

ARCHITECTURAL DRAFTING LEVEL III
Two Period Block Year

Prerequisite: Architectural Drafting Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics and repairing/developing to industry standards.

TI 0904
IBED 21107

DRAFTING – 3D MODELING/SENIOR DESIGN
Two Period Block Year

Prerequisite: Architectural Drafting Level III

Course designed to give the student experience in 3D modeling and in the knowledge, skills, and attitudes necessary to succeed at an independent design project.

TI 9803
IBED 21148

OCCUPATIONAL & CAREER EXPERIENCE - ARCHITECTURAL DRAFTING
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

MECHANICAL DRAFTING

Mechanical drafting is a program designed to prepare students with skills to assist engineers in the development of detailed working drawings and related specifications for mechanical devices and

machinery. Includes instruction in sketching rough layouts; drafting detailed multi view drawings; computing magnitude, direction, and point of application of tension, compression, and bending factors; compiling and analyzing text data to determine design effects on machinery in relations to temperature, pressure, speed, horsepower, and fuel consumption; producing drawings that indicate dimensions, tolerances, fasteners, joining requirements, and other engineering data, and in the use of computer assistance design equipment and materials. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6130.

TI 0301 INTRODUCTION TO DRAFTING LEVEL I
IBED 21101 Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic concepts in drafting, whether by board or computer-aided.

TI 0902 MECHANICAL DRAFTING LEVEL II
IBED 21106 Two Semesters/Three Trimesters/Two Period Block Year
Prerequisite: Introduction to Drafting Level I

A course designed to provide students with mechanical drafting applications.

TI 0903 MECHANICAL DRAFTING LEVEL III
IBED 21106 Two Period Year Prerequisite: Mechanical Drafting Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing/developing to industry standards.

TI 0904 DRAFTING – 3D MODELING/SENIOR DESIGN
IBED 21107 Two Period Block Year Prerequisite: Mechanical Drafting Level III

Course designed to give the student experience in 3D modeling and in the knowledge, skills, and attitudes necessary to succeed at an independent design project.

TI 9809 OCCUPATIONAL & CAREER EXPERIENCE - MECHANICAL DRAFTING
IBED 21148 Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

RESIDENTIAL CARPENTRY/BUILDING CONSTRUCTION

Residential carpentry/building construction is a program designed to prepare students with skills to lay out, fabricate, erect, install, and repair structures and fixtures, using hand and power tools. The program Includes instruction in common systems of framing, construction materials, estimating, and blueprint reading. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. Industry certification for the construction trades will be provided through demonstrated competency in the occupation and National Center for Construction Education and Research (NCCER), or Home Builders Institute (HBI) and National Association of Home Builders (NAHB) training. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6101or 6108. OSHA – 10HR – Construction.

TI 1101 RESIDENTIAL CARPENTRY/BUILDING CONSTRUCTION LEVEL I
IBED 17003 Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic residential carpentry and building construction.

TI 1102 RESIDENTIAL CARPENTRY/BUILDING CONSTRUCTION LEVEL II

IBED 17003 Two Semesters/Three Trimesters/Year
Prerequisite: Residential Carpentry/Building Construction Level I

A course designed to provide students with residential carpentry and building construction applications.

TI 1103
IBED 17003 RESIDENTIAL CARPENTRY/BUILDING CONSTRUCTION LEVEL III
Two Period Block Year Prerequisite: Residential Carpentry/Building Construction Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing/building to industry standards. Emphasis of work site skills is expected at this level with the majority of the students participating in off campus work experiences. Students should be prepared to pass the NCCER basic carpentry examination at this level.

TI 9811
IBED 17048 OCCUPATIONAL & CAREER EXPERIENCE - RESIDENTIAL CARPENTRY/BUILDING
CONSTRUCTION
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment to include OSHA 10HR. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

MASONRY

TI 1104
IBED 17008 MASONRY LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic brick, masonry, block, stone and building construction.

TI 1105
IBED 17008 MASONRY LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Masonry Level I

A course designed to provide students with mortar, brick, masonry, block, stone, and building construction applications.

TI 1106
IBED 17008 MASONRY LEVEL III
Two Period Block Year Prerequisite: Masonry Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing/building to industry standards. Emphasis of work site skills is expected at this level with the majority of the students participating in off campus work experiences.

TI 9811
IBED 17048 OCCUPATIONAL & CAREER EXPERIENCE-RESIDENTIAL CARPENTRY/BUILDING
CONSTRUCTION
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

HOME TECHNOLOGY INTEGRATION

TI 1107
IBED 17009 HOME TECHNOLOGY INTEGRATION LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic elements of home technology integration including electronic sensors, internetworking techniques, HVAC controls, and home wiring.

TI 1108
IBED 17009

HOME TECHNOLOGY INTEGRATION LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Home Technology Integration Level I

A course designed to provide students with electronic sensors, internetworking techniques, HVAC controls, and home wiring applications.

TI 9811
IBED 17048

OCCUPATIONAL & CAREER EXPERIENCE - RESIDENTIAL CARPENTRY/BUILDING CONSTRUCTION
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

CABINETMAKING AND MILLWORK

Cabinetmaking and millwork is a program designed to prepare students with skills to engage in the mass production of such articles as windows and frames, moldings, trim and panels; and such products as home fixtures, kitchen cabinets, and office equipment. The program includes instruction in cutting, shaping, assembling, and refinishing articles; installing hinges, catches, drawer pulls, and other hardware; and planning and drafting layouts. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6105. OSHA 10 HR General Industry.

TI 0401
IBED 17007

CABINETMAKING AND MILLWORK LEVEL I
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic cabinetmaking and millwork.

TI 0402
IBED 17007

CABINETMAKING AND MILLWORK LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Cabinetmaking and Millwork Level I

A course designed to provide students with cabinetmaking and millwork applications.

TI 0403
IBED 17007

CABINETMAKING AND MILLWORK LEVEL III
Two Period Block Year Prerequisite: Cabinetmaking and Millwork Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing/building to industry standards.

TI 9804
IBED 17048

OCCUPATIONAL & CAREER EXPERIENCE - CABINETMAKING AND MILLWORK
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment to include OSHA 10 HR. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

Engineering Technology and Manufacturing Cluster

ELECTRONIC TECHNOLOGY

Electronic technology is a three year program designed to provide students skills to assemble, install, operate, maintain, and repair electrical/electronic equipment used in the communications industry and manufacturing. The program includes instruction in using common industrial tools and equipment, in

various types of applications such as power supplies, video cassette recorders, amplifiers, motors, controls, digital and computer circuitry. The courses also include training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. At the base of all instruction is a basic application of academic skills in the classroom and through laboratory exercises which are linked to achievement standards. Beginning students should have a strong base in mathematics. Certification through ISCET is generally required for employment. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 5018.

TI 0501
IBED 17106

BASIC ELECTRONICS TECHNOLOGY
One Year - Semester/Two Trimesters optional

Prerequisite: None

This is the beginning level course of the electronics technology program. Students should have completed or be currently enrolled in algebra I prior to enrolling in the course. The course will reinforce skill development in applied mathematics and physics through theory and laboratory assignments based on industry procedures. Students will be provided instruction on safety, introduction to the electronics industry, tool and equipment use, soldering techniques, and employability skills, and habits. Students will be involved in activities which will reinforce problem solving, teaming, language arts, science, and mathematics skills which use real-life industry examples and procedures. The course will give students the opportunity to study devices that use DC to series-parallel circuits and AC concepts.

TI 0502
IBED 17106

INTERMEDIATE ELECTRONICS TECHNOLOGY

One Year

Prerequisite: Basic Electronics Technology or Permission of the Instructor

This is the second level course in the electronics technology program. This course is a yearlong offering. Students will be required to develop a project development plan and do research on the various projects they will build as a part of the course. Students will be involved in projects which will reinforce problem solving, teaming, language arts, science, and mathematics skills through real-life industry examples and procedures. The course will give students the opportunity to build and test devices that use DC to series-parallel circuits, AC concepts, digital, and solid state circuits. This course should be offered as a year long course.

TI 0503
IBED 17106

ADVANCED ELECTRONICS TECHNOLOGY

One Year - Multiple-Period Block

Prerequisite: Intermediate Electronics Technology

This is the third level course in electronics technology. This course consists of a multiple period block of instruction offered for a full year. Students will refine their project development plan and develop more detailed projects in final form during the course. The course will give students the opportunity to build and test advanced level devices that use DC principles for RC and RL circuits and AC concepts. Digital and solid state circuits including FET, IC, and combinational logic applications will be studied and tested. Academic subject fields will be reinforced throughout all aspects of the course and students will be expected to practice proper customer relations skills at all times. All students will be expected to complete an internship and a number of special projects to earn credit in the course.

TI 9805
IBED 21150

OCCUPATIONAL & CAREER EXPERIENCE - ELECTRONICS

Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

PRECISION MACHINING

Precision machining is a program designed to prepare students with skills to shape metal parts on machines such as lathes, grinders, drill presses, milling machines, and shapers. Programs may also train individuals in the use of one machine tool. Includes instruction in making computations related to work dimensions, CNC and EDM machines, testing feeds, and speeds of machines using precision measuring instruments such as layout tools, micrometers, and gauges; machining and heat-treating various metals; and in laying out machine parts. The course also includes training in applied

communications, and employability skills including leadership, human relations, and safe efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6232 or 5022.

TI 1001
IBED 13203 **PRECISION MACHINING LEVEL I**
Semester/Trimester/Year Prerequisite: None

A course designed to introduce students to basic precision machining and automated manufacturing.

TI 1002
IBED 13203 **PRECISION MACHINING LEVEL II**
Two Semesters/Three Trimesters/Year Prerequisite: Precision Machining Level I

A course designed to provide students with precision machining and automated manufacturing applications.

TI 1003
IBED 13203 **PRECISION MACHINING LEVEL III**
Two Period Block Year Prerequisite: Precision Machining Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, and repairing/producing to industry standards.

TI 9810
IBED 13258 **OCCUPATIONAL & CAREER EXPERIENCE - PRECISION MACHINING/AUTOMATED MANUFACTURING**
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

AUTOMATED MANUFACTURING

TI 1004
IBED 13204 **AUTOMATED MANUFACTURING LEVEL I**
Semester/Trimester/Year Prerequisite: None

This is an introductory course, in a three course program, leading to industry certification in automated manufacturing. Course includes measurement, safety, and circuit diagrams as they relate to automated manufacturing controls. Course includes theory and laboratory practice in CNC milling, Computer Aided Design (CAD), and Computer Aided Manufacturing (CAM) concepts. Introduction to laser and plasma manufacturing devices will be incorporated.

TI 1005
IBED 13204 **AUTOMATED MANUFACTURING LEVEL II**
Two Semesters/Three Trimesters/Year Prerequisite: Automated Manufacturing Level I

This is the second course in a three course program leading to industry certification in automated manufacturing. Continued work in measurement, safety, circuit diagrams, and CNC milling. Overview of electronics as it relates to sensors, servos, solenoids, and other automated manufacturing controls. Overview of automated manufacturing using 3-D picks and place technology, articulated arm robotics, conveyors, and materials handling. Course will emphasize limits of precision and accuracy, stepper motor control, and connectivity with other computerized manufacturing operations. Overview of pneumatics and hydraulics used to control manufacturing processes. Course includes air theory, hydraulic theory, pneumatic/hydraulic circuit diagrams and components, PLC control, and circuit simulation.

TI 1006
IBED 13204 **AUTOMATED MANUFACTURING LEVEL III**
Two Period Block Year Prerequisite: Automated Manufacturing Level II

This is the third course in a three course program leading to industry certification in automated manufacturing. Continued work in measurement, safety, circuit diagrams, CNC milling, pneumatics, and hydraulics. Course includes theory and laboratory practice in CNC lathe and robotic welding. A senior project that combines all automated manufacturing processes learned to-date will be undertaken.

TI 9810
IBED 13258

**OCCUPATIONAL & CAREER EXPERIENCE - PRECISION MACHINING/AUTOMATED
MANUFACTURING**
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

METALS FABRICATION TECHNOLOGY

Metal fabrication is a program that provides basic metallurgy knowledge and skills for students who want to work in the field of ornamental metalworking, including precision and fine metal skills such as jewelry and metal sculpture. Students will be provided an opportunity to study metallurgy science and the basics of heating and treating metals to be used in various applications, including casting, forming, fitting, bending, welding, and hammering. They will develop design and practice skills through active development of products, beginning with base metals and progressing to fine or precious metals. Students will be expected to produce artwork and consumer product pieces ranging from free standing metal sculptures to wall ornamentation, lawn and garden products, and optional jewelry pieces. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications in metalworking or welding. The instructor certification code is # 6237 or 6236.

TI 1404
IBED 13055

INTRODUCTION TO METAL FABRICATION
Semester or Year

Prerequisite: None

The introduction to metal fabrication course provides a basic understanding of the metals and processes used in the making of metal structures, ornamentation, and consumer products. Students will study the science of metallurgy and proper treating of base and precious metals. Metal scrollwork for simple garden and lawn ornaments or wall and house pieces will be included in the products that students will fabricate. Casting and forming will be covered, along with some fabrication using soldering, brazing, gas, and electric welds.

TI 1405
IBED 13055

INTERMEDIATE METAL FABRICATION AND DESIGN
One Year

Prerequisite: Introduction to Metal Fabrication

The second level course provides more complex metal treating techniques and introduces design and function into the product being developed. Students will be given an opportunity to copy existing artwork and to develop designs that will meet various consumer and community needs. Metal sculpturing techniques such as stretching, shrinking, and forming will be offered to the students at this level. Students will be expected to develop basic level consumer-ready pieces for home or personal use. More advanced welding and metal fabrication skills will be taught.

TI 1406
IBED 13055

ADVANCED METAL FABRICATION
One Year/Two Period Block

Prerequisite: Intermediate Metal Fabrication and Design

The advanced level course for metal fabrication requires students to become proficient in design and development of functional pieces for personal, home, or community applications. Students will be expected to demonstrate welding skills and fabrication techniques which will meet industry standards in a variety of settings. Industry internships will be offered for students with appropriate skill level in traditional entry level metalworking fields. Individualized assignments may be made with community groups or other interested parties for specific projects. Group projects will be a part of the curriculum, as available, to promote community, and civic appreciation. Optional instruction may be provided in jewelry and precision ornamental skills.

TI 9814
IBED 13359

OCCUPATIONAL & CAREER EXPERIENCE – WELDING/METAL FABRICATION
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

WELDING TECHNOLOGY

Welding is a program designed to prepare students with skills for occupations in welding as form cutters, tack welders, welder assemblers, welder helpers, combination welders, arc welders, and production line welders. The content includes use of blue prints and shop drawing; use of gases and/or welding processes; and brazing parts according to diagrams, blueprints, or written specification. Laboratory activities are an integral part of this program and provide instruction in various processes and techniques of welding and fabrication skills including oxyacetylene welding and cutting, brazing, arc welding, MIG welding, flux core arc welding, TIG welding, certification test preparation and use of current industry standards and techniques. Students will be provided instruction in a minimum of level one AWS EG2.0-95 skill development. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. The industry certification for welding is the American Welding Society (AWS). All instructors must carry AWS Educator (AWE as per AWS QC 5-91 requirements) or Inspector (AWI) certification. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6236.

TI 1401
IBED 13207

WELDING LEVEL I
Semester/Trimester/Year

Prerequisite: None

A course designed to introduce students to basic welding. The course introduces students to the metallic processes used in metals fabrication and provides them instruction on measurement and layout of material to be welded. Blueprint reading and fundamentals of welding applications using the AWS curriculum is the main component of instruction.

TI 1402
IBED 13207

WELDING LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Welding Level I

A course designed to provide students with welding applications using level one of the AWS curriculum. Students will be provided the initial stages of instruction that will prepare them for certification as an entry level welder as described in AWS publication EG2.0-95. Completion of TI 1403 will give students the necessary skills development to certify as an entry level welder.

TI 1403
IBED 13207

WELDING LEVEL III
Two Period Block Year

Prerequisite: Welding Level II

A course designed to provide student with team work, problem solving, diagnostics, and designing, repairing, fabricating, or building to industry standards. Students will be provided instruction following the AWS curriculum described in AWS EG2.0-95. Testing of student projects will be covered using AWS publication QC10-95. Some instruction may be provided under AWS EG3.0-96 to more advanced students if time permits. Students should have the skill development needed to certify as an entry level welder after the completion of this course.

TI 9814
IBED 13359

OCCUPATIONAL & CAREER EXPERIENCE – WELDING/METAL FABRICATION
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

Media Technologies Cluster

BROADCAST TECHNOLOGIES

Broadcast Technologies is a program designed to prepare students in understanding the basic concepts of the radio and television broadcast and telecommunications field. Curricular activities include: Script writing, lighting, filming and directing, electronic news gathering and field production. The program includes instruction about basic telecommunication systems, and the function and use of video and audio equipment, editing, and set design. The courses will also include producing and directing programming, as well as employability skills. SkillsUSA is the official Professional-Technical

Student Organization. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6195. The broadcast technologies program is one of four programs in the media technologies cluster with graphic communications, journalism technology, and commercial photography. The sequence of instruction for all four programs begins with a one semester of media technologies fundamentals course, suggested for freshmen/sophomore level students. Advanced level courses are encouraged to offer on the job training or paid internships in industry settings.

TI 0700
IBED 11001 **MEDIA TECHNOLOGIES FUNDAMENTALS**
Semester/Trimester Prerequisite For all Media Technologies cluster courses

This course is designed to provide the basic fundamental competencies for the media technologies cluster courses and is to be offered as the beginning course at the freshman/sophomore level. Legal and ethical issues, fundamental tool and equipment skills, transferable knowledge sets, employability skills, communication skills, and terminology used throughout the industry.

TI 1701
IBED 11103 **BROADCAST/VIDEO TECHNOLOGIES LEVEL I**
Semester/Trimester Prerequisite: Media Technologies Fundamentals

A course designed to introduce students to the basic concepts of the broadcast technology field.

TI 1702
IBED 11103 **BROADCAST/VIDEO TECHNOLOGIES LEVEL II**
Two Semesters/Three Trimesters/Year Prerequisite: Broadcast/Video Technologies I

A course designed to cover the technical aspects of the broadcast field, (audio and video equipment usage).

TI 1703
IBED 11103 **BROADCAST/VIDEO TECHNOLOGIES LEVEL III**
Two Period Block Year Prerequisite: Broadcast/Video Technologies II

A course designed to provide students with opportunities to produce, direct, host, and write programs to be aired on commercial and public media.

TI 9807
IBED 11103 **OCCUPATIONAL & CAREER EXPERIENCE – MEDIA TECHNOLOGIES**
Semester/

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

GRAPHICS COMMUNICATIONS TECHNOLOGY

Graphic/printing/digital imaging is a group of instructional programs that prepare individuals to design and execute layouts and illustrations for advertising displays and instructional manuals. The program includes instruction in phases of electronic, layout, composition, image manipulation, digital photography, computer graphics, and other competencies related to the graphic arts industry. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. SkillsUSA is the official Professional-Technical Student Organization. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6190 or 6180. The graphic communications technology program is one of four programs in the media technologies cluster with broadcast technologies, journalism technology, and commercial photography. The sequence of instruction for all four programs begins with a one semester of media technologies fundamentals course, suggested for freshmen/sophomore level students. Advanced level courses are encouraged to offer on the job training or paid internships in industry settings.

TI 0700
IBED 11103 **MEDIA TECHNOLOGIES FUNDAMENTALS**
Semester/Trimesters Prerequisite for all Media Technologies cluster courses

This course is designed to provide the basic fundamental competencies for the media technologies cluster courses and is to be offered as the beginning course at the freshman/sophomore level. Legal and ethical issues, fundamental tool and equipment skills, transferable knowledge sets, employability

skills, communication skills, and terminology used throughout the industry will be discussed.

TI 0701
IBED 11153

GRAPHIC COMMUNICATIONS LEVEL I
Semester/Trimester/Year

Prerequisite: Media Technologies Fundamentals

This course is designed to introduce students to basic graphic/printing. The course will include digital photo/graphics, and computer graphics.

TI 0702
IBED 11153

GRAPHIC COMMUNICATIONS LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Graphic Communications Level I

A course designed to provide students with graphic printing applications including digital and computerized graphics. Transfer of images from digital processes to paper and other media is included as well as transferring paper images to digital files for modification. Pre press and copy production skills include set-up, image development, layout, and final draft copy.

TI 0703
IBED 11153

GRAPHICS COMMUNICATIONS LEVEL III
Two Period Block Year

Prerequisite: Graphic Communications Level II

A course designed to provide student with team work, critical thinking, problem solving, diagnostics, designing, and computer graphics from basic digital images to final print. Students will be provided opportunities to prepare finished products such as newsletters, catalogs, and school publications in a two-period block of instruction. All work will be performed to industry standards.

TI 9807
IBED 11198

OCCUPATIONAL & CAREER EXPERIENCE – MEDIA TECHNOLOGIES
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

JOURNALISM TECHNOLOGY

The purpose of this program is to provide students with the necessary skills to pursue a career in the field of journalism or commercial writing. Students will be involved in classroom and laboratory experiences in conventional and digital photography, page layout, creative, investigative, technical writing, and script writing. A large part of the instruction will be devoted to real life publication development and design. Schools that are using video yearbooks may offer this activity as a major work assignment for students. The course also includes training in applied communications, and employability skills including leadership, human relations, and safe efficient work practices. SkillsUSA is the official Professional-Technical Student Organization. Active participation in development and planning of school publications will be required of all students. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6180 or 6192. The journalism technology program is one of four programs in the media technologies cluster group with broadcast technologies, graphic communications, and commercial photography. The sequence of instruction for all four programs begins with a one semester of media technologies fundamentals course, suggested for freshmen/sophomore level students. Advanced level courses are encouraged to offer on the job training or paid internships in industry settings.

TI 0700
IBED 11001

MEDIA TECHNOLOGIES FUNDAMENTALS
Semester/Trimester

Prerequisite for all Media Technologies cluster courses

This course is designed to provide the basic fundamental competencies for the media technologies cluster courses and is to be offered as the beginning course at the freshman/sophomore level. Legal and ethical issues, fundamental tool and equipment skills, transferable knowledge sets, employability skills, communication skills, and terminology used throughout the industry will be discussed.

TI 0710
IBED 11102

BEGINNING JOURNALISM LEVEL I
Semester/Trimester/

Prerequisite: Media Technologies Fundamentals

An entry level course which provides instruction in the basic skills and techniques needed in the field of journalism. The use of electronic desktop publishing as a means of producing for the journalistic media is explored. The content should include, but not be limited to the following: Recognition of and writing news; development of editorials, sport articles, and feature stories; workshop experience in photography, lay-outs, advertising, printing, and other practical aspects of journalistic enterprise.

TI 0711
IBED 11104 NEWS PRODUCTION LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Beginning Journalism Level I

A course which provides students with actual hands-on experiences associated with publishing a tabloid newspaper. Writing, editing, photographic layout, desktop publishing, legal and ethical issues, and business management skills are emphasized. Students actually perform all the skills necessary to produce a monthly school newspaper. Assignments for video notebooks and or technical writing for the development of technical manuals may be typical assignments.

TI 0712
IBED 11104 NEWS PRODUCTION LEVEL III
Two Period Block Year Prerequisite: News Production Level II

A course which provides students with actual hands-on experiences associated with producing photographic works for the school and special activities. Creating, editing, photographic layout, desktop publishing and business management skills are emphasized. Students actually perform all the skills necessary to produce various school photos and/or special projects.

TI 0716
IBED 11104 NEWSPAPER/YEARBOOK LEVEL IV
Two Period Block Year Prerequisite: Yearbook Production Level III

Course designed for school newspaper and/or yearbook student editors. Leadership skills necessary to meet newspaper and yearbook deadlines, managing staff, etc, are emphasized.

TI 9807
IBED 11148 OCCUPATIONAL & CAREER EXPERIENCE – MEDIA TECHNOLOGIES
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

TI 0700
IBED 11001 MEDIA TECHNOLOGIES FUNDAMENTALS
Semester/Trimester Prerequisite for all Media Technologies cluster courses

This course is designed to provide the basic fundamental competencies for the media technologies cluster courses and is to be offered as the beginning course at the freshman/sophomore level. Legal and ethical issues, fundamental tool and equipment skills, transferable knowledge sets, employability skills, communication skills, and terminology used throughout the industry will be discussed.

TI 0713
IBED 11104 YEARBOOK PRODUCTION LEVEL I
Semester/Trimester Prerequisite: Media Technologies Fundamentals

This course provides students with actual hands-on experience associated with producing a conventional student yearbook or a video yearbook. Writing, editing, photographic layout, desktop publishing, and business management skills are emphasized. Students actually perform all the skills necessary to produce a school yearbook.

TI 0714
IBED 11104 YEARBOOK PRODUCTION LEVEL II
Two Semesters/Three Trimesters/Year Prerequisite: Yearbook Production Level I

This course provides students with actual hands-on experience associated with producing a conventional student yearbook or a video yearbook. Writing, editing, photographic layout, desktop publishing, and business management skills are emphasized. Students actually perform all the skills necessary to produce a school yearbook.

TI 0715
IBED 11104 YEARBOOK PRODUCTION LEVEL III
Two Period Block Year Prerequisite: Yearbook Production Level II

A course which provides students with actual hands-on experiences associated with producing or assisting with the school closed circuit broadcasts and other video projects. Creating, editing, layout, sound clips, equipment set-up, authoring, desktop publishing, and business management skills are emphasized. Students actually perform all the skills necessary to produce a school broadcast or video production.

TI 0716
IBED 11104

NEWSPAPER/YEARBOOK LEVEL IV
Two Period Block Year

Prerequisite: Yearbook Production Level III

Course designed for school newspaper and/or yearbook student editors. Leadership skills necessary to meet newspaper and yearbook deadlines, managing staff, etc, are emphasized.

TI 9807
IBED 11148

OCCUPATIONAL & CAREER EXPERIENCE – MEDIA TECHNOLOGIES
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

COMMERCIAL PHOTOGRAPHY

Commercial photography is a program designed to prepare students for entry level employment in the photographic studio, processing lab, and/or other related photographic businesses. Instruction includes use and care of cameras, film processing techniques, composition, darkroom printing techniques, digital imaging, product illustration, portraiture techniques, and photo journalism with emphasis on skills needed in portrait, commercial, and industrial applications. Instruction also includes communication skills, leadership skills, human relations, and employability skills, as well as safe, efficient work practices. SkillsUSA is the official Professional-Technical Student Organization. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6192. The commercial photography program is one of four programs in the media technologies cluster group with broadcast technologies, graphic communications, and journalism technology. The sequence of instruction for all four programs begins with a one semester of media technologies fundamental course, suggested for freshmen/sophomore level students. Advanced level courses are encouraged to offer on the job training or paid internships in industry settings.

TI 0700
IBED 11001

MEDIA TECHNOLOGIES FUNDAMENTALS
Semester/Trimester

Prerequisite: For all Media Technologies cluster courses

This course is designed to provide the basic fundamental competencies for the media technologies cluster courses and is to be offered as the beginning course at the freshman/sophomore level. Legal and ethical issues, fundamental tool and equipment skills, transferable knowledge sets, employability skills, and communication skills, and terminology used throughout the industry will be discussed in this offering.

TI 1601
IBED 11052

PHOTOGRAPHY LEVEL I
Semester/Trimester/Year

Prerequisite: Media Technologies Fundamentals

A course designed to introduce students to basic commercial photography.

TI 1602
IBED 11052

PHOTOGRAPHY LEVEL II
Two Semesters/Three Trimesters/Year

Prerequisite: Photography Level I

A course designed to provide students with commercial photography applications.

TI 1603
IBED 11052

PHOTOGRAPHY LEVEL III
Two Period Block Year

Prerequisite: Photography Level II

A course designed to provide students with team work, creative thinking, problem solving, diagnostics and creative designing to industry standards.

TI 9807
IBED 11148

OCCUPATIONAL & CAREER EXPERIENCE – MEDIA TECHNOLOGIES
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

Public Service and Environmental Cluster

COSMETOLOGY TECHNOLOGY

Cosmetology instruction is generally offered to provide students with the opportunity to explore the field as a career. The sequence of instruction should prepare the student to study for the state licensure examination. A total of 630 hours of instruction is required in the program. The instructor must hold a valid cosmetology license with the appropriate certifications. The teacher must also be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6262.

TI 1501
IBED 19104

INTRODUCTION TO COSMETOLOGY
Semester/Trimester

Prerequisite: None

This introductory course provides students with the purposes, functions, and introduction to the career opportunities in the field of cosmetology. Students are given basic instruction in safety practices, general health and well being, and fashion concepts. They usually are limited to mannequins or mock preparations. The course is generally offered as a semester length course.

TI 1502
IBED 19104

INTERMEDIATE COSMETOLOGY
Two Semesters/Three Trimesters/Year

Prerequisite: Introduction to Cosmetology
or Permission of the Instructor

The second level course in cosmetology provides students with opportunities to design and practice hair dressing and general practices which are performed by technicians. They are introduced to other elements of the cosmetology field and work with live customers on a limited basis as supervised by the professional educator. General business and entrepreneurial practices are introduced. This course should be offered as a yearlong course.

TI 1503
IBED 19104

ADVANCED COSMETOLOGY
One Year – (Multi-Period Block)

Prerequisite: Intermediate Cosmetology

The advanced level cosmetology course provides students with experiences similar to the salon environment, including live work and general business procedures. This course provides sufficient amount of time on task to allow the student to prepare for state licensure, depending on the scope of instruction provided. The course is a multi-period block of instruction for a full year.

TI 9815
IBED 19148

OCCUPATIONAL & CAREER EXPERIENCE – COSMETOLOGY
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

LAW ENFORCEMENT/CRIMINAL JUSTICE

This three year program is designed to prepare students for the various occupations in law enforcement from police officer, criminal justice or probation officer, correctional officers, or auxiliary officers. Students will not be able to certify as police officers or correctional officers during the high school years but will have the necessary preparation to continue into advance level preparation at the postsecondary institutions. Course work will cover all aspects of the occupational field, including social and psychological sciences, community, city, county, and state regulations and laws.

There are physical and personal expectations and requirements that are specific to the law

enforcement field such as security, drug, legal, and ethical restrictions which all students must meet in order to enroll in the program. This program will adhere to strict enrollment regulations as determined by the local law enforcement officials who serve on the technical advisory committee. The program consists of a series of courses beginning with introductory level classes to explore the occupation. These are semester length classes, usually one period in length which may be combined with social science classes. Second year courses include specific content to the occupational field and are year long classes which may consist of one or two period offerings. The third year courses must be multi-period length courses which are offered for one year or a minimum of two trimesters. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6282.

TI 1801
IBED 15051

ORIENTATION TO POLICE, FIRE, AND EMERGENCY SERVICES
Semester/Two Trimesters

Prerequisite: None

This course provides students with a basic understanding of the occupational choices in law enforcement. Instruction will be given in social and psychological studies, along with foundational work in general police work and criminal justice. Students will study the national, state, and local laws related to the civil and criminal aspects of society.

TI 1802
IBED 15051

LAW ENFORCEMENT, DETENTION, AND CORRECTIONS I
Two Semesters/Three Trimesters/Year

Prerequisite: Orientation to Police, Fire, and
Emergency Services

This course is designed to prepare students for an occupation within the criminal justice or law enforcement fields. Students will study basic criminal investigation techniques, mechanics of search, communications, emergency medical procedures, rescue and safety, traffic and crowd control, and related scenarios. The course is a year in length and is offered in either a single or multiple period format.

TI 1803
IBED 15051

LAW ENFORCEMENT, DETENTION, AND CORRECTIONS II
One Year (Multi-Period Block)

Prerequisite: Law Enforcement, Detention,
and Corrections I

This multi-period year long class is designed to prepare students for entry into occupations in law enforcement, corrections, or criminal justice. While students will not be able to be certified as police, corrections or criminal justice officers, they will be given the necessary skills to perform basic tasks in the occupation as auxiliary personnel and go on for further training at a postsecondary institution. Additional training will be provided in patrol techniques, weapons, investigations, court systems, defensive tactics, vehicle operations, fingerprinting and identification systems, and accident and criminal action prevention/investigation.

TI 9818
IBED 15248

OCCUPATIONAL & CAREER EXPERIENCE – LAW ENFORCEMENT/CRIMINAL JUSTICE
Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.

ENVIRONMENTAL SCIENCE TECHNOLOGY

Environmental science technology is a new program offering designed to prepare students with skills for employment in the environmental technology field. Students will be given a variety of skill development situations in which they will be required to solve problems relating to water, ground, and air contaminations or abnormalities. A strong science background is suggested prior to enrollment in this program. Instrument and tool calibration exercises will be provided, along with instruction on the proper use and care of sensitive measurement devices. Extensive on-site industry and field experiences will be scheduled. Instruction also includes communication, leadership, human relations, employability, and safe and efficient work practices. The teacher must be certified as a Professional-Technical Skilled and Technical Sciences instructor. This involves taking Professional-Technical

Education Teacher Education coursework in addition to holding the industry certifications. The instructor certification code is # 6145.

TI 1901
IBED 18505

INTRODUCTION TO ENVIRONMENTAL SCIENCE TECHNOLOGY
Semester/Trimester

Prerequisite: None

A program designed to provide students with team work, critical thinking, problem solving, diagnostics, and creative designing to industry standards. Basic instrument and tool use will be provided, along with computer/instrumentation applications and applied physical and chemical science laboratory exercises.

TI 1902
IBED 18505

ENVIRONMENTAL SCIENCE TECHNOLOGY APPLICATIONS

Two Semesters/Three Trimesters/Year Prerequisite: Intro to Environmental Science Technology

This course is offered for a full year and introduces students to the multitude of scenarios of hazardous material conditions which exist in the nation's waterways, soil, and air. Air and water pollution examples will be studied and models of controlling pollution or contamination will be examined.

TI 1903
IBED 18505

ADVANCED ENVIRONMENTAL APPLICATIONS/INTERNSHIPS

Two Period Block Year Prerequisite: Environmental Science Technology Applications

Students will be involved in examining and studying existing pollution and contamination solutions in area industries. Single family, community, and industry applications of models to prevent contamination and pollution of soil, water, and air will be presented to students. On-site industry and field experiences will be an integral component of the third level of this program. Instruction also includes communication, leadership, human relations, employability, and safe and efficient work practices. This course is offered as a multiple period block of instruction for a full year.

TI 9819
IBED 18997

OCCUPATIONAL & CAREER EXPERIENCE – ENVIRONMENTAL SCIENCE TECHNOLOGY

Semester/Trimester

A school district, community, or industry (preferred) based work experience/internship activity organized and planned to develop advanced skills necessary to gain and maintain employment. This course may encompass a broad range of paid/unpaid work experiences related to the career objective of the student. The experience must be supervised and monitored by the teacher.