

**Van Buren Community Schools
Agricultural Education**

**Developed by Max Dirks
Summer of 2008**

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Table of Contents

Acknowledgement	1
Forward	2
Educational Philosophy.....	3
Educational Equity Policy	4-5
Career Education	6
Multicultural and Gender Fair Education Opportunity	7
Program for Students at Risk.....	8
Special Education and Integration	9-10
Iowa Law	11-13
Agricultural Education.....	14-18
21 st Century Skills	19-21
Career Pathways.....	22-24
FFA.....	25
Agricultural Education Philosophy	26
Agricultural Education Standards and Benchmarks.....	27
Agribusiness Management Course Outline	28
Agribusiness Management Unit Plans	29-33
Plant and Crop Science Course Outline	34
Plant and Crop Science Unit Plans	35-39
Natural Resources Course Outline	40
Natural Resources Unit Plans	41-46
Farm Management Course Outline.....	47
Farm Management Unit Plans.....	48-51
Modern Livestock Production Course Outline.....	52
Modern Livestock Production Unit Plans.....	53-57
Turf Management Course Outline.....	58
Turf Management Unit Plans.....	59-61
Ag. Sales and Marketing Course Outline.....	62
Ag. Sales and Marketing Unit Plans.....	63-66
Fundamentals of Agriculture (Biotechnology).....	67
Fundamentals of Agriculture (Biotechnology) Unit Plans.....	68-71
Fundamentals of Agricultural/Horticultural Science and Business	72-73

Acknowledgement

This curriculum should assist teachers in determining the expected concept and performance level at the various grades. It is not designed to restrict or limit the creativity or imagination of the teachers. This guide serves as a springboard for the development of additional concepts and master of skills, depending on the ability and interests of each student.

This project was successfully completed in the summer of 2008, because of the dedication and consistent efforts of Max Dirks, Van Buren Community Schools Agricultural Education instructor. We are grateful and compliment his fine efforts.

Forward

The purpose of this guide is to assist teachers in the organization and instruction of Agricultural Education classes in the Van Buren Community School District.

This guide provides direction for teachers of Agricultural Education and is adaptable for individual and class needs. It is however, important that teachers follow the suggested sequence and scope of lesson content to ensure systematic and comprehensive instruction concepts and skills.

This guide prepared by Max Dirks, provides direction for instruction, which reflects a sense of wonder, and appreciation for the gifts within and around us.

EDUCATIONAL PHILOSOPHY

The Board of Directors of the Van Buren Community School District is committed to the operation of schools whose purpose is to serve by assisting each learner develop into a mature individual and contributing member of society. The goals of education and the goals of democracy are fundamentally the same. The board believes the nature of learning is a continuous experience throughout the life of each individual. This experience is influenced by a variety of factors including the environment surrounding the learner. The board also believes, and recognizes, the nature of a learner requires an awareness of the unique needs of each individual and the various stages of development associated with growth. It is believed all have the capability of learning given appropriate opportunity.

The Board of Directors recognizes the guardianship of public education is a trust and an obligation. Consequently, the board believes that a desirable learning atmosphere must be provided which includes the following: (1) Appropriate facilities; (2) Competent staff; (3) Appropriate educational and instructional materials; (4) Assurance of safety; (5) Recognition of individual dignity and worth; (6) A scope of educational experiences to challenge each student; and (7) Periodic review, revision, and evaluation.

The Board further believes the scope of educational experience should meet the needs of varied learners and include experiences that encompass the intellect and associated basic and developmental skills, as well as aesthetic, physical, civic, social, vocational, multicultural, and technological awareness.

Date of Adoption: May 9, 1990
Date Reviewed: March 9, 2005
Date Revised: November 8, 1995

EDUCATIONAL EQUITY POLICY

1. It is the policy of Van Buren Community School District to provide equal educational and employment opportunities and not to illegally discriminate on the basis of sex, color, national origin, religion, marital status, race, socioeconomic status or disability in its educational programs, activities or its employment and personnel policies.
2. This district shall provide program activities, a curriculum and instructional resources which will reflect the racial and cultural diversity present in the United States and the variety of careers, roles and life styles open to both men and women in our society. One of the objectives of the district's programs, curriculum, services and teaching strategies is to reduce stereotyping and to eliminate bias on the basis of sex, race, color, religion, marital status, socioeconomic status, national origin and disability. The curriculum, programs and services shall foster respect and appreciation for the cultural diversity found in our country and an awareness of the rights, duties and responsibilities of each individual as a member of a pluralistic society.
3. It is the policy of this district to affirmatively recruit women and men, members of diverse racial/ethnic groups and persons with disabilities for job categories where they are underrepresented. A fair and supportive environment will be provided for all students and employees regardless of their sex, race, national origin, marital status, religion, socioeconomic status, color or disability. Harassment or discriminatory behavior that denies civil rights or access to equal educational opportunities included comments, name-calling, physical conduct or other expressive behavior directed at an individual or group that intentionally demeans the race, color, national origin, sex, disability, socioeconomic status, marital status or religion, made from one employee to another, from an employee to a student or vice versa, and from one student to another creating an intimidating, hostile or demeaning environment is a violation of this policy.
4. The board requires all persons, agencies, vendors, contractors and other persons and organizations doing business with or performing services for the school district to subscribe to all applicable federal and state laws, executive orders, rules and regulations pertaining to contract compliance and equal opportunity.
5. Inquiries regarding compliance of equity policies may be directed to the following:
Title IX – High School Principal; Title VI – Early Childhood Center Director; and Section 504 – Superintendent, Van Buren Jr/Sr. High School, 503 Henry Street, Keosauqua, Iowa 52565, 319-293-3333, to the Director of the Iowa Civil Rights Commission, Des Moines, Iowa, or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, Missouri.
6. The Affirmative Action Coordinator for the district shall be the Building Principals/Superintendent. The Educational Equity Coordinator for the district will be the Curriculum Coordinator. Inquiries concerning a grievance procedure should be addressed to either coordinator.

Federal and state regulations require that the non-discrimination policy, the identity of the designated local coordinator and notification about the existence of the grievance procedure be disseminated to employees, students and parents on an annual or ongoing basis. This notification must be included in major annual or general publications such as:

Student Handbooks

Local Newspapers

Application Forms

Program Brochures & Publications

Agreement forms with labor organizations and businesses which hold professional agreements with the school or agency.

School Newsletters

Employee (Staff) Handbooks

Registration Handbook

Teacher Handbooks

Employment

Legal Reference:

20 U.S.C 1221 et seq. (1994)

20 U.S.C 1681 et seq. (1994)

20 U.S.C. 1701 et seq. (1994)

29 U.S.C. 794 (1994)

42 U.S.C. 12101 et seq. (1994)

34 C.F.R. Pt. 100 (1999)

34 C.F.R. Pt. 104 (1999)

Iowa Code 216.9; 256.11, .11A; 280.3 (2001)

281 I.A.C. 12

Cross Reference:

100.2 District Educational Equity Policy

516 Students Educational Equity Policy

Date of Adoption: May 9, 1990

Date of Review: March 8, 2006

Date of Revision: April 12, 2006

CAREER EDUCATION

Preparing students for careers is one goal of the education program. Career education will be infused into the education program for grades kindergarten through twelve. This education shall include, but not be limited to, awareness of self in relation to others and the needs of society, exploration of employment opportunities, experiences in personal decision-making, and experiences of integrating work values and work skills into their lives.

It shall be the responsibility of the curriculum development committee assist certified personnel in finding ways to provide career education in most courses. The board, in its review of the curriculum, shall review the means in which career education is combined with other instruction programs.

Legal Reference: Iowa Code Sections 256.11, 280.9 (1989); 670 Iowa Admin. Code 3.5(9); 281 Iowa Admin Code 12.5(7) (new standards).

Cross Reference: Curriculum Study

Date of adoption: February 8, 1989

Date of Review: April 11, 2001

Date of Revision: _____

MULTICULTURAL AND GENDER FAIR EDUCATION OPPORTUNITY

Enrolled children in the school district community shall have an equal opportunity for a quality public education without discrimination regardless of their race, color, sex, marital status, national origin, religion, socioeconomic status or disability.

The education program shall be free of such discrimination and provide equal opportunity for the participants. The education program shall foster knowledge of, respect and appreciation for the historical and contemporary contributions of diverse cultural groups as well as men and women, to society. Special emphasis is placed on Asian-Americans, African-Americans, Hispanic-Americans and persons with disabilities. It shall also reflect the wide variety of roles open to both men and women and provide equal opportunity to both sexes.

Inquiries regarding compliance with equal education opportunity shall be directed to the High School Principal by writing to Central Administrative Office, Title IX Compliance Officer, 503 Henry Street, Keosauqua, Iowa 52565, or telephoning at 319-293-3334.

Date of Adoption: February 8, 1989

Date of Review: March 8, 2006

Date of Revision: April 12, 2006

PROGRAM FOR STUDENTS AT RISK

The board recognizes some students require additional assistance in order to graduate from the regular education program. The board shall provide a program to encourage and provide an opportunity for students at risk to achieve their potential and obtain their high school diploma.

It shall be the responsibility of the superintendent or his designee to develop a program for students at risk.

It shall also be the responsibility of the superintendent or his designee to develop administrative regulations for identifying students, for program evaluation and for the training of school district personnel.

Legal Reference: Iowa Code Sections 256.9, 261C, 262.71, 280.19, 442.51-.54 (1989); 670 Iowa Admin. Code 3.5(9); 281 Iowa Admin. Code 12.5(13) (new standards).

Date of Adoption: February 8, 1989

Date of Review: April 11, 2001

Date of Revision: _____

SPECIAL EDUCATION AND INTEGRATION

1. Special Education

The board recognizes special education laws change from year to year. All special education students will be identified and placed according to state and federal laws and will be maintained in the least restrictive environment. The board shall provide a free appropriate education program and related services to students identified in need of special education. The special education services will be provided from birth until the appropriate education is completed, age twenty-one or to maximum age allowable in accordance with the law. Students requiring special education shall attend general education classes, participate in nonacademic and extra curricular services and activities and receive services in a general education setting to the maximum extent appropriate to the needs to each individual student. The appropriate education for each student shall provide an appropriate education for a child in need of special education but the board is not required to provide the best possible option or to maximize the potential of the child commensurate with the opportunity provided to nondisabled children.

Special education students shall be required to meet the requirements stated in board policy "Graduation Requirements" for graduation, or the requirements stated in their individual education plans.

It shall be the responsibility of the superintendent or his designee and the area education agency director of special education to administer the special education program. While the board secretary shall be custodian of school records, the building principal shall be responsible for maintaining the records of the children in need of special education. These records may be viewed by authorized school personnel and in accordance with the requirements of board policy, "Student Records Access."

Special education students shall be required to meet the requirements stated in board policy or in their IEP's for graduation. It shall be the responsibility of the superintendent and the area education agency director of special education to provide or make provisions for appropriate special education and related services.

2. Integration

All education programs, including those of the moderately and severely handicapped, will be integrated to the least restrictive environment. The integration shall assure that the educational program include the physical, functional, social and societal aspects of development. Such integration shall also include minority populations regardless of the race, creed, color, gender, marital status, national origin, ability or disability.

3. Provision of Special Education

In keeping with education's commitment to provide a seamless system of special education services for children from birth through twenty-one years of age, children from birth through two years of age, and children three through five years of age shall be provided comprehensive special education services within the public education system. The district shall work in conjunction with the Are Education Agency to provide services, at the earliest appropriate time, to children with disabilities from birth through age two, and to ensure for eligible children a smooth transition from early childhood special education provided through an individualized family service plan (IFSP) to early childhood special education services provided through an individualized education program (IEP).

Legal Reference: Board of Education v. Rowley, 458 U.S. 176 (1982).

Springdale School District #50 v. Grace, 693 F. 2d 41 (8th Cir. 1982)

Southeast Warren Comm. School District v. Dept. of Public Instruction.

258 N.W. 2d 173 (Iowa 1979)

20 U.S.C. §§ 256.11(7); 256B; 273.1, .2, .5, .9(2)-(3); 280.8

Date of Adoption: August 13, 1986

Date of Review: February 21, 2001

Date of Revision: March 14, 2001

General Accreditation Standards

Preamble

The goal for the early childhood through twelfth grade educational system in Iowa is to improve the learning, achievement, and performance of all students so they become successful members of a community and workforce. It is expected that each school and school district shall continue to improve its educational system so that more students will increase their learning, achievement, and performance.

Accreditation focuses on an ongoing school improvement process for schools and school districts. However, general accreditation standards are the minimum requirements that must be met by an Iowa public school district to be accredited. A public school district that does not maintain accreditation shall be merged, by the state board of education, with one or more contiguous school districts as required by Iowa Code subsection 256.11(12). A nonpublic school must meet the general accreditation standards if it wishes to be designated as accredited for operation in Iowa.

General accreditation standards are intended to fulfill the state's responsibility for making available an appropriate educational program that has high expectations for all students in Iowa. The accreditation standards ensure that each child has access to an educational program that meets the needs and abilities of the child regardless of race, color national origin, gender, disability, religion, creed, marital status, geographic location, or socioeconomic background.

With local community input, school districts and accredited nonpublic schools shall incorporate accountability for student achievement into comprehensive school improvement plans designed to increase the learning, achievement, and performance of all students. As applicable, and to the extent possible, comprehensive school improvement plans shall consolidate federal and state program goal setting, planning, and reporting requirements. Provisions for multicultural and gender fair education, technology integration, global education, gifted and talented students, at-risk students, students with disabilities, and the professional development of all staff shall be incorporated, as applicable, into the comprehensive school improvement plan. See subrules 12.5(8) to 12.5(13), 12.7(1), and 12.8(1).

DIVISION V EDUCATION PROGRAM 281 Chapter 12

281-12.5(256) Education program. The following education program standards shall be met by schools and school districts for accreditation with the start of the 1989-1990 school year.

12.5(5) *High school program, grades 9-12.* In grades 9 through 12, a unit is a course or equivalent related components or partial units taught throughout the academic year as defined in subrule 12.5(14). The following shall be offered and taught as the minimum program: English-language arts, six units; social studies, five units; mathematics, six units as specified in 12.5(5)"c"; science, five units; health, one unit; physical education, one unit; fine arts, three units; foreign language, four units; and vocational education, 12 units as specified in 12.5(5)"i." Beginning with the 2010-2011 school year graduating class, all students in schools and school districts shall satisfactorily complete at least four units of English-language arts, three units of mathematics, three units of science, three units of social studies, and one full unit of physical education as conditions of graduation. The three units of social studies may include the existing graduation requirements of one-half unit of United States government and one unit of United States history.

i. Vocational education-school districts (three units each in at least four of the six service areas). A minimum of three sequential units, of which only one may be a core unit, shall be taught in four of the

following six service areas: agricultural education, business and office education, health occupations education, home economics education, industrial education, and marketing education. The instruction shall be competency-based; shall provide a base of knowledge which will prepare students for entry level employment, additional on-the-job training, and postsecondary education within their chosen field; shall be articulated with postsecondary programs of study, including apprenticeship programs; shall reinforce basic academic skills; shall include the contributions and perspectives of persons with disabilities, both men and women, and persons from diverse racial and ethnic groups. Vocational core courses may be used in more than one vocational service area. Multi-occupations may be used to complete a sequence in more than one vocational service area; however, a core course(s) and multi-occupations cannot be used in the same sequence. If a district elects to use multi-occupations to meet the requirements in more than one service area, documentation must be provided to indicate that a sufficient variety of quality training stations be available to allow students to develop occupational competencies. A district may apply for a waiver if an innovative plan for meeting the instructional requirement for the standard is submitted to and approved by the director of the department of education.

The instructional programs also shall comply with the provisions of Iowa Code chapter 258 relating to vocational education. Advisory committee/councils designed to assist vocational education planning and evaluation shall be composed of public members with emphasis on persons representing business, agriculture, industry, and labor. The membership of local advisory committees/councils will fairly represent each gender and minority residing in the school district. The accreditation status of a school district failing to comply with the provisions of this subrule shall be governed by 281-subrule 46.7(10), paragraph "g."

(2) "Agricultural education programs" prepare individuals for employment in agriculture-related occupation. Such programs encompass the study of applied sciences and business management principles, as they relate to agriculture. Agricultural education focuses on, but is not limited to, study in horticulture, forestry, conservation, natural resources, agricultural products and processing, production of food and fiber, aquaculture and other agricultural products, mechanics, sales and service, economics marketing, and leadership development..

281 Chapter 46

281-46.1(258) Standards for vocational education. Vocational education programs carried on under the provisions of Iowa Code chapter 258 shall be governed by and administered pursuant to the Acts of Congress accepted by chapter 258 and its provisions, duly-adopted rules of the federal agencies involved and the current federal-state contracts or plans approved pursuant to these statutes and rules.

281-46.6(258) Revised standards for vocational education. Vocational education programs under the provisions of Iowa Code chapter 258 shall be administered by the specific provisions of 281-subrule 12.5(4), as well as the other provisions set forth in 281-Chapter 12.

This rule is intended to implement Iowa Code section 256.11 and chapter 258.

281-46.7(258) Definitions and descriptions of procedures. The strategies for implementing the vocational education standards may be clarified by the following definition and descriptions of procedures which shall be utilized:

Vocational education means organized educational programs offering a sequence of courses which are directly related to the preparation of individuals in paid or unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree. Such programs shall include competency-based applied learning which contributes to an individual's academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, and the occupational-specific skills necessary for economic independence as a productive and contributing member of society. Program content shall include recognition of the contributions of individuals with

disabilities, men and women in nontraditional roles and minorities. Such term also includes applied technology education.

CHAPTER 258 VOCATIONAL EDUCATION

258.9 Local advisory council.

The board of directors of a school district that maintains a school, department, or class receiving federal or state funds under this chapter shall, as a condition of approval by the state board, appoint a local advisory council for vocational education composed of public members with emphasis on persons representing business, agriculture, industry and labor. The local advisory council shall give advice and assistance to the board of directors in the establishment and maintenance of schools, departments, and classes that receive federal or state funds under this chapter. Local advisory councils may be organized according to program area, school, community, or region. The state board shall adopt rules requiring that the memberships of local advisory councils fairly represent each sex and minorities residing in the school district. Members of an advisory council shall serve without compensation.

[C24, 27, 31, 35, 39, § 3845; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §258.9]
86 Acts, ch. 1245, §1431

258.10 Powers of district boards.

1. The board of directors of a school district may carry on prevocational and vocational instruction in subjects relating to agriculture, commerce, industry, and home economics, and pay the expense of such instruction in the same way as the expenses for other subjects in the public schools are paid.

2. The board of directors of a school district may establish and maintain school-to-work programs including alternative learning opportunities through which students may obtain skills or training outside the classroom. School-to-work programs include, but are not limited to, the following:

a. Short-term job shadowing opportunities for students to explore career interests by observing work at a workplace or to include a series of visits to various workplaces and time spent with individual workers to observe specific jobs.

b. Structured work experiences integrating school and work-based experiences in an internship that may be an extension of a job shadowing experience.

c. Mentoring experiences providing students with a formal relationship with a worksite role model who shares career insights and teaches students specific work-related skills.

d. Career-oriented work experiences tied to school lessons through formal or informal training agreements, formal learning plans or mentoring, by workplace personnel who may be paid or unpaid, and which may earn students credit toward graduation.

e. Structured on-the-job training or apprenticeships for students who are enrolled in a technical or professional program that leads to a high school diploma, advanced certificate of mastery, or associate degree.

f. Work experiences available to students in school and community placements directly supervised by a school district or community college staff member.

3. The board may provide workers' compensation coverage by insuring, or self-insuring as provided in section 87.4, students participating in unpaid school-to-work programs. A school district's liability to students injured while participating in an unpaid school-to-work program is as provided in section 85.20.

[C24, 27, 31, 35, 39, § 3846; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §258.10]
97 Acts, ch. 37, §6

AGRICULTURAL EDUCATION

(511 IAC 6-7-6, 511 IAC 6.1-5/1-10.1, 511 IAC 6.1-5-3.5)

INTRODUCTION

Agricultural Education is an active part of the curriculum for nearly 200 high schools in Iowa. Courses in Iowa Agricultural Science and Business Programs provide instruction daily for over 18,500 students. Iowa Agricultural Education combines the home, the school, and the community as the means of education in agriculture. The courses provide students with a solid foundation of academic knowledge and an ample opportunity to apply this knowledge through classroom activities, laboratory experiments and project applications, supervised agricultural experiences, and the FFA.

The vision of Agricultural Education: Is that all people value and understand the vital role of agriculture, food, fiber and natural resources systems in advancing personal and global well being.

Our mission of Agriculture Education is to prepare students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.

The goals for our Agricultural Science and Business students focus on providing learning experiences, which will allow them to:

1. Demonstrate desirable work ethics and work habits.
2. Apply the basic agricultural competencies and the basic background knowledge in agriculture and related occupations
3. Analyze entrepreneurial, business, and management skills needed by students preparing to enter agriculture and related occupations.
4. Expand leadership and participatory skills necessary for the development of productive and contributing citizens in our democratic society.
5. Gain effective social and interpersonal communication skills.
6. Be aware of career opportunities in agriculture and set career objectives.
7. Acquire job-seeking, employability, and job-retention skills.
8. Advance in a career through a program of continuing education and life-long learning.
9. Apply the basic learning skills in reading, writing, thinking, mathematics, communicating, listening and studying.
10. Recognize the interaction of agriculture with governments and economic systems at a local, state, national and international level.
11. Recognize how new technologies impact agriculture and how agriculture impacts the environment.

It is important to understand and reaffirm that school-to-work experiences do not preclude students from going on to higher education and in fact participation actually enhances the opportunity. A growing number of students are combining both college preparation and school-to-work experiences in their high school preparation. Agricultural Science and Business and the FFA programs have demonstrated this fact for over seventy-five years through their work in preparing students for careers in the science, business and technology of agriculture. The programs combine classroom instruction and hands-on career focused learning to develop students' potential for premier leadership, personal growth, and career success.

MIDDLE LEVEL

EXPLORING AGRICULTURAL SCIENCE AND BUSINESS

(GRADES 7 AND 8)

EIS #0496

The Agricultural Science and Business curriculum for middle school students is locally driven allowing considerable flexibility in content. The primary objective is to introduce students to the dynamic industry of agriculture while gaining an awareness of the importance, impact and diversity of careers in agricultural science and business. The content provides a hands-on exploratory, science-based approach to agri-science as well as providing a broad-based coverage of horticulture, animal science, environmental science, and biotechnology.

ANIMAL SCIENCE

5008

CIEP Code: 02.0201

This course is a semester with animal science I and a semester course for Animal Science II program that provides students with an overview of the field of animal science. Students participate in a large variety of activities and laboratory work, including real/simulated animal science experiences and projects. All areas, which the students study, can be applied to both large and small animals. Topics to be addressed include: anatomy and physiology, genetics, reproduction, nutrition, aquaculture, careers in animal science, common diseases and parasites, social and political issues related to the industry, and management practices for the care and maintenance of animals.

- A two credit/two semester (full year) course
- This course may fulfill Science requirement for graduation.
- A Core 40 directed elective as part of a technical career area
- Competencies and learning activities defined.
- This course is included as a component of the Agriculture and Natural Resources career cluster and may also be included as a component of the Engineering, Science, and Technologies, and Health Sciences career clusters.

FUNDAMENTALS OF AGRICULTURAL SCIENCE AND BUSINESS

5056

CIP Code: 01.0101

Fundamentals of Agricultural Science and Business are highly recommended as a prerequisite and foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics to be covered include: animal science, plant and soil science, food science, horticultural science, farm and agribusiness management, landscape management, natural resources management, agricultural mechanization, and supervised agricultural experience which includes units on career and leadership development. An activity and project based approach is used along with team building to enhance the effectiveness of the student learning activities.

Four-year career plans, personal and career portfolios should be developed, reviewed regularly and upgraded, utilizing a local school counselor and other school and community persons or resources.

HORTICULTURAL SCIENCE

5132

CIP Code – 01.0601

Horticultural Science is a semester course designed to give students a background in the field of horticulture and its many career opportunities. It addresses the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Topics covered include: reproduction and propagation of plants, plant growth, growth media, floriculture, management practices for field and greenhouse production, marketing concepts, production of herbaceous, woody, and nursery stock, fruit and vegetable production, and pest management. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

- This course may fulfill up to two credits of the minimum Science requirement for graduation.
- Competencies and learning activities defined
- This course is included as a component of the Agriculture and Natural Resources career cluster and may also be included as a component of the Engineering Science, and Technology career cluster.

PLANT AND SOIL SCIENCE (Plant and Crop Science)

5170

CIP Code: 02.401

Plant and Soil Science is a semester course. Students participate in a variety of activities including laboratory work. Topics covered include: the taxonomy of plants, the various plant components and their functions, plant growth, plant reproduction and propagation, photosynthesis and respiration, environmental factors affecting plant growth, diseases and pests of plants and their management, biotechnology, the basic components and types of soil, calculation of fertilizer application rates and procedures for application, soil tillage and conservation, irrigation and drainage, land measurement, cropping systems, precision agriculture, principles and benefits of global positioning systems, harvesting, and career opportunities in the field of plant and soil science.

- A semester – long course
- This course may fulfill the Science requirement for graduation.
- Competencies and learning activities defined
- This course is included as a component of the Agricultural and Natural Resources career cluster and may also be included as a component of the Engineering Science and Technologies career cluster.

AGRIBUSINESS MANAGEMENT

5002

CIP Code: 01.0104

Agribusiness Management is an 18-week course, which presents the concepts necessary for managing an agriculture-related business from a local/global perspective. Concepts covered in the course include: identification of careers in agribusiness, global visioning, safety management, entrepreneurship, the planning, organizing, controlling, and directing of an agribusiness, effects of government organizations of agribusiness, economic principles, credit, record keeping, budgeting, fundamentals of cash flow, taxation and the tax system, insurance, marketing, cooperatives, purchasing, the utilization of technology in agribusiness, human resource management, customer service, and employer-employee relations and responsibilities.

- Competencies and learning activities defined.
- This course is included as a component of the Agriculture and Natural Resources career cluster and may also be included as a component of the Business, Management and Finance career cluster.

FARM MANAGEMENT

5022

CIP Code: 01.0104

Farm management is a semester long course that introduces students to the principles of farm organization and management, with the utilization of technology. It covers the effects of good/poor management on a farm, economic principles, decision-making, methods for organizing and planning, getting started in the farming business, farm record keeping, risk management, and career opportunities in the field of farm management.

- Competencies and learning activities defined
- This course is included as a component of the Agriculture and Natural Resources career cluster and may also be included as a component of the Business, Management and Finance career cluster.

LANDSCAPE MANAGEMENT

5136

CIP Code: 01.0605

Landscape Management is a course that provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications and management skills necessary in landscaping operation, and the care and use of equipment utilized by landscapers.

- Recommended prerequisites: None
- Competencies and learning activities defined

- This course is included as a component of the Agricultural and Natural Resources career cluster and may also be included as a component of the Art, Media and Communications and Business Management and Finance career clusters.

NATURAL RESOURCE MANAGEMENT

5180

CIP CODE: 03.0299

This course is a semester long program that provides students with a background in natural resource management. Students are introduced to career opportunities in natural resource management and related industries, the history of the forest industry and forest policy, the importance and uses of forest plants, factors which influence the development of forests, forest improvement and best management practices, proper care and use of forest tools and equipment, effects of management practices of the environment, soil conservation practices water and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, fish, wetlands and pond management, surveying and map use, management of recreational areas, outdoor safety and weather. "Hands-on" learning activities encourage students to investigate areas of environmental concern including: identification and management of ecosystems, management of waste, chemicals and the environment, soil conservation, land uses, regulations, and ordinances, water quality, and air quality.

- Recommended prerequisites: None
- Competencies and learning activities defined
- This course is included as a component of the Agricultural and Natural Resources career cluster

SUPERVISED AGRICULTURAL EXPERIENCE (SAE) MOC

5228

CIP Code: Cooperative Education 01.0000 CIP Code – 4 Non-Cooperative 01.4000

MOC

Supervised Agricultural Experience (SAE) is designed to provide students the opportunity to gain experience in the agriculture field(s) in which they are interested. Students should experience and apply what is learned in the classroom lab/training site to real-life situations. Students work closely with their agricultural science and business teacher(s), parents, and/or employers to get the most out of their program. This course is offered each semester. SAE may be offered as a Cooperative Education Program.

- Competencies and learning activities defined
- This course is included as a component of the Agricultural and Natural Resources career cluster and may also be included as a component of; Engineering, Science and Technologies; Business, Management and Finance; and Health Services career cluster.