AFNR

ISBE Course Code 22151A001

Career Exploration

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Orientation Course* (Group 1)
- ✓ Recommended for Grades 5-8

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

Career Exploration courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. These courses expose students to various sources of information on career and training options and may also assist them in developing job search and employability skills.

AFNR

ISBE Course Code 68003A001

Exploratory Agricultural Science

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Orientation Course* (Group 1)
- ✓ Recommended for Grades 5-8

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

This exploration course provides the opportunity to learn fundamental concepts in agriculture to serve as a foundation for future courses and to inform students about the industry that is so vital to society and to their future. Major units of instruction include an introduction to the agricultural industry, animal science, plant science, horticulture science, agribusiness, environmental science, agricultural mechanics, food science, and leadership and personal development. Participation in FFA student organization activities is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18001A001

Introduction to the Agricultural Industry

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Introductory Course* (Group 2)
- ✓ Recommended for Grades 9-11

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

This course provides an opportunity for students to learn how the agricultural industry is organized; its major components; the economic influence of agriculture at state, national and international levels; and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, soil science, horticulture, natural resources, agribusiness management, and agricultural mechanics, will be presented. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18003A001

Basic Agricultural Science

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Introductory Course* (Group 2)
- ✓ Recommended for Grades 9-11

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

This course builds on basic skills and knowledge gained in the Introduction to the Agricultural Industry course. Major units of instruction include agricultural research, soil science, advanced plant science, biotechnology, advanced animal science. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18999A001

Foundational Supervised Agricultural Experience (SAE)

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Introductory Course* (Group 2)
- ✓ Recommended for Grades 9-11

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

This course is designed to establish, improve, and/or expand knowledge and skills in various agricultural careers. Students will increase their awareness of agricultural careers through the following components: Career Exploration and Planning; Employability Skills for College and Career Readiness; Personal Financial Management and Planning; Workplace Safety; and Agricultural Literacy (may be transitioned to Immersion SAE). Participation in FFA student organization activities and exploration of Immersion Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 18308A003

Basic Biotechnology

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Introductory Course* (Group 2)
- ✓ Recommended for Grades 9-11

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

This course is designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology. Students attain knowledge about the field of biotechnology and deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the biotechnology industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, research projects, guest speakers, and workplace visits. The objectives covered in this course are both academic and technical in nature and are presented in a progressively rigorous manner. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 18308A002

Agricultural and Biological Engineering (ABE)

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Skills Course* (Group 3)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

Agricultural and Biological Engineering (ABE) courses enable students to develop and expand their knowledge and skills in biology, physics, technology, and mathematics. Course content may vary widely, drawing upon diverse fields such as biomedical engineering, biomolecular genetics, bioprocess engineering, agricultural biology, or environmental engineering. Students may engage in problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interfaces, bioprocesses, forensics, and bioethics. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 18308A001

Agricultural Biotechnology

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Skills Course* (Group 3)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

This course examines the agricultural applications of biotechnology, the use of living organisms to solve problems or make useful products. Applications include technologies used in bioprocessing, cell /tissue culture, genetic and protein engineering. Specific units of instruction include: impacts of biotechnology, genetics, and biotechnology in plant, animal, and microbial science. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts

AFNR

ISBE Course Code 18203A002

Agricultural Communications

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Skills Course* (Group 3)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

Students will analyze current agricultural issues and determine how they affect people on all sides of the issue. The students then learn and enhance their written and oral communication skills by presenting their views and opinions to the class. Students learn how to arrange and present debates, speeches, and interviews to be effective leaders in today ’s society. This course can also be designed to provide students with the knowledge and leadership experiences to help them to become successful in life and in the workplace. Students will further enhance their potential for leadership development, personal growth, and career success. Topics may include workplace skills, effective communication, decision -making, problem-solving, leadership styles and qualities, and successful execution of teamwork or collaborative activities. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18204A002

Global Agriculture

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Skills Course* (Group 3)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

This course will primarily focus on agriculture in developing countries and frame this focus within a discussion of contemporary crucial issues facing food, agriculture and natural resources on a global scale. The course will look at the impacts of geographic, political, economic, and social issues of a particular country or region and how that affects their agriculture and trade. This course will also examine the impacts that trade agreements have on other countries' agriculture. Specific emphasis will also be placed on debates concerning global hunger and food security. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18203A003

Agricultural Leadership

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

Agricultural Leadership courses help students develop leadership skills with a focus on opportunities in the food, fiber, and natural resources industries. Topics may include but are not limited to human relationships and effective communication, decision-making and problem-solving, leadership qualities and styles, and ensuring successful completion of group activities. Students will learn to lead groups and teams, manage volunteers, exercise leadership ethics, and be able to demonstrate leadership in multicultural settings. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AFNR

ISBE Course Code 18205A001

Agriculture Computers and Technology

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

Agriculture Computers and Technology courses help students develop their knowledge and skills in using computer and other technology to operate and manage agricultural businesses. These courses allow students to use computer hardware, software, and the Internet to find information, record and analyze financial and production data, track market trends and economic forecasts, monitor weather, utilize global positioning systems, and prepare communications and reports. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 21014A001

Biotechnical Engineering

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

Biotechnical Engineering courses enable students to develop and expand their knowledge and skills in biology, physics, technology, and mathematics. Course content may vary widely, drawing upon diverse fields such as biomedical engineering, biomolecular genetics, bioprocess engineering, agricultural biology, or environmental engineering. Students may engage in problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interfaces, bioprocesses, forensics, and bioethics.

BS

ISBE Course Code 18997A001

Biotechnology Systems Independent Study

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Independent Study Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

Courses in Agricultural Biotechnology Independent Study, often conducted with instructors as mentors, enable students to explore topic of interest related to agriculture, food, and natural resources. Independent Study courses may serve as an opportunity for students to expand their expertise in a particular application, to explore a topic in greater detail, or to develop more advanced skills. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 18109A001

Integrated Pest Management

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

Integrated Pest Management courses help students develop an understanding of the life cycles of and damage caused by pests, diseases, and weeds. Course topics may include the application of pesticides and/or herbicides to manage pest populations and assessing the effectiveness of pest management plans, types of pesticides and their formulations, pesticide labels, human pesticide poisoning, pesticides in the environment, safe handling of pesticides, pesticide application equipment and calibration, and Illinois pesticide laws and regulations. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

MULTI

ISBE Course Code 18310A001

Sustainable Agriculture

Key Course Details

- ✓ Aligned to **Multiple Pathways**
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns to the following pathways within the Agriculture, Food and Natural Resources (AFNR) career cluster: Biotechnology Systems (BS), Environmental Service Systems (ESS), Food Products and Processing Systems (FPPS), and Plant Systems (PS). Course concepts will provide a structure for advanced study in each aligned pathway.

Course Description

Sustainable/Alternative Agriculture courses explore technological and environmental changes and concerns. These courses address alternative approaches to food production including, but not limited to, organics, low-input, natural, and sustainable production methodology and practices. Course content may include comparing the effects of alternative production practices to those of conventional production practices. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

MULTI

ISBE Course Code 18306A001

Aquacultural Science and Technology

Key Course Details

- ✓ Aligned to **Multiple Pathways**
- ✓ Recognized as an *AFNR Advanced Course* (Group 4)
- ✓ Recommended for Grade 12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns to the following pathways within the Agriculture, Food and Natural Resources (AFNR) career cluster: Biotechnology Systems (BS), Food Products and Processing Systems (FPPS), Natural Resource Systems (NRS), and Plant Systems (PS). Course concepts will provide a structure for advanced study in each aligned pathway.

Course Description

This course is designed to develop student knowledge and skills in the area of aquacultural science and technology. Instructional units include basic studies of aquacultural species; reproduction processes, genetics, nutrition and health in aquacrops; ecological balances; and environmental requirements of aquatic plants and animals. Water quality, chemical and temperature analyses will be conducted for a variety of aquacrops. Individual and group experimentation and student research project(s) are required for satisfactory completion of this course. Careers to be examined include fish hatchery technician, production manager, fish nutritionist, and researcher. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

BS

ISBE Course Code 18998A003

Biotechnology Systems Workplace Experience

Key Course Details

- ✓ Aligned to **Biotechnology Systems** Pathway
- ✓ Recognized as an *AFNR Workplace Experience Course* (Group 5)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food, and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application, and management of biotechnology in the context of AFNR.

Course Description

Agricultural Biotechnology Systems Workplace Experience courses provide students with work experience in fields related to agricultural biotechnology. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.

AFNR

ISBE Course Code 18998A003

Agriculture, Food & Natural Resources Workplace Experience

Key Course Details

- ✓ Aligned to **all AFNR** Pathways
- ✓ Recognized as an *AFNR Workplace Experience Course* (Group 5)
- ✓ Recommended for Grades 10-12

Instructional Model

Agriculture, Food, and Natural Resources (AFNR) education prepares students for successful careers and a lifetime of informed choices in global agriculture, food, fiber and natural resources systems. The AFNR instructional model provides students with opportunities for leadership development, personal growth, and career success. Model instruction in all AFNR courses is delivered via three major components:

- Classroom/Laboratory Instruction
- AFNR Work-based Learning
- Student Leadership Organizations

Pathway Alignment

This course aligns with all pathways in the AFNR career cluster. Skills and knowledge gained by students throughout this course are applicable to a wide range of AFNR occupations.

Course Description

Agriculture, Food & Natural Resources Workplace Experience courses provide work experience in fields related to the Agriculture, Food, & Natural Resources cluster. Goals must be set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses must include classroom instruction at least once per week, involving further study of the field, discussion of relevant topics that are responsive to the workplace experience and employability skill development. Workplace Experience courses must be taught by an approved WBL educator-coordinator. These courses should be aligned to a Career Development Experience that could include: Student-led Enterprises; School-based Enterprises; Immersion Supervised Agricultural Experiences; Clinical Experiences in Science and Technology programs; Internships; and Apprenticeship programs including Youth Apprenticeships, Pre-apprenticeships, and Registered Apprenticeships.