|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |
| --- |
|  |
|  |
|  |
|  |

 |
| Michigan State UniversityAgriculture, Food, & Natural Resources Education Student Handbook |
| M. W. Everett, M. Forbush, A. J. McKim, M. R. Raven, & T. Rogers-Randolph |

Table of Contents

AFNRE [Programmatic Overview 1](#_Toc261004492)

AFNRE [Educational Objectives](#_Toc261004493) 2

[Programmatic Considerations for Students](#_Toc261004493) 3

[Applying to Michigan State University as an incoming freshman](#_Toc261004494) 3

Applying to Michigan State University as a transfer student 3

 [Teacher Preparation Program Declaration (CoE) as a MSU student 3](#_Toc261004495)

Scholarship opportunities for AFNR Education students 3

[Undergraduate Degree Requirements 3](#_Toc261004496)

[Agriculture, Food, and Natural Resources Education Major Courses 4](#_Toc261004496)

[Interim Occupational Experience (IOC) 5](#_Toc261004496)

 IOC Example Documentation [5](#_Toc261004496)

 Acquisition of IOC Hours [6](#_Toc261004496)

[A 4-Year Plan 7](#_Toc261004492)

A [4-Year Plan For (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) 7](#_Toc261004493)

A [4-Year Plan For AFNR Major - Teaching 8](#_Toc261004493)

A [4-Year Plan For AFNRE Major - Non-Teaching 9](#_Toc261004493)

[Linked BS/MA Program 10](#_Toc261004492)

[Example AFNRE M.A. Programs with AFNRE B.S. Linkages 11](#_Toc261004492)

[Interim Occupational Certificate Hours and Documentation 12](#_Toc261004492)

Non-Teaching [Internships 13](#_Toc261004492)

[Calendar of Important Events 1](#_Toc261004492)4

[AFNR Education Student Checklist 1](#_Toc261004492)5

[Networking Guide 1](#_Toc261004492)6

Michigan State University [AFNR Education Team Faculty Bios 17](#_Toc261004492)

# Michigan State UniversityAgriculture, Food, & Natural Resources Education Student Handbook

**AFNRE Programmatic Overview**

Preparation of educators to teach in Agriculture, Food, Natural Resources Education (AFNRE) secondary programs requires a unique curriculum comprising a blend of pedagogy, natural science, technical agriculture and natural resource management, and community sustainability courses to address the program outcomes specified by the National Association for Career and Technical Education (CTE) Career Cluster Agriculture, Food and Natural Resources. CTE defines the AFNR Career Cluster as:

*The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.*

Michigan State University as the Land Grant University for Michigan is the only institution positioned to offer a program that prepares an educator to be highly qualified to teach in this career cluster.

Due to changes in recent years, careers in agriculture, food and natural resources (AFNR) offer some of the most abundant opportunities for Michigan’s future workforce. More than ever, several complex issues exist for agriculture and natural resources. The U.S. Department of Education aims to incorporate green- and sustainability-related knowledge and skills standards into the existing National Career Clusters including AFNR. Food safety issues such as national outbreaks of *E. coli*, concerns over food quality, transportation costs, climate change, and renewed focus on health benefits of fresh produce have led to a greater interest by the public in local food systems. Wildlife-livestock disease issues such as Chronic Wasting Disease (CWD) relate to public health concerns and create new avenues for study.  Finally, Michigan’s agricultural lands and natural resources are vital to the economy through agritourism and natural resources-based enterprises.  Sustaining these lands affects overall community well-being. MSU’s teacher preparation program in Agriculture, Food and Natural Resources Education is unique in the country, with its focus on AFNR sustainability for the benefit of communities in Michigan, the U.S. and the world. Community Sustainability is an interdisciplinary department within the College of Agriculture and Natural Resources, with the purpose of educating scholars and practitioners who are prepared to address current and future challenges across inter-related issues in agriculture, food, natural resources, recreation, tourism and communities.

**AFNRE Educational Objectives**

The educational objectives of the AFNRE program include those related to the sustainability core and those related more specifically to agricultural, food and natural resources education. For the sustainability core, the objectives are that students will demonstrate proficiency in the following areas: critical thinking, systems thinking, ecological literacy, economic literacy, boundary crossing, community, equity, civic engagement, leadership, ethics, initiative and practical skills.

The educational objectives specific to the AFNRE major are based on the Michigan Standards for Preparation of Teachers – Agriscience and Natural Resources (HX). A summary of how the educational objectives are categorized is presented here and the details can be found at the URL address below.

In summary, graduates of the program will fully understand and be able to apply:

* Program Development Content Knowledge (HX 1.0)
* Technical Content Knowledge (HX 2.0)
* Instructional Material Development Content Knowledge (HX 3.0)
* Program Management Content Knowledge (HX 4.0)
* Leadership Development Content Knowledge (HX 5.0)
* Supervised Agricultural Experience Content Knowledge (HX 6.0)
* Career Education Content Knowledge (HX 7.0)

Additionally, see the American Association for Agricultural Education (AAAE) Standards for a list of competencies required for Teacher Education in Agriculture majors. Standards can be found at the following URL address: <http://www.aaaeonline.org/files/ncatestds.pdf>

**Programmatic Considerations for Students**

**Applying to Michigan State University as an incoming freshman**

Students interested in studying Agriculture, Food, and Natural Resources Education should apply prior to beginning their senior year of high school at the beginning of MSU’s open application period. *This usually occurs in mid-August.* If you have questions about the open application period or the [application process](http://admissions.msu.edu/Default.asp). **The enrollment code for the Agriculture, Food, and Natural Resources Education major is AFNRE\_BS1.**

**Applying to Michigan State University as a transfer student**

Students interested in studying Agriculture, Food, and Natural Resources Education and are currently at another 4-year institution or community college should apply when appropriate based on advising from Michigan State University AFNR Education (Dr. Michael Everett, everettm@msu.edu, 517-581-5888). If you have questions about transfer student enrollment or the application process, you should contact [The Admissions Office](http://admissions.msu.edu/Default.asp). Transfer articulation of courses can be found at: <http://www.transfer.msu.edu/>. **The enrollment code for the Agriculture, Food, and Natural Resources Education major is AFNRE\_BS1.**

**Applying to the College of Education as a current MSU student**

MSU students and transfer students will need submit a Teacher Preparation Program Declaration to the College of Education as part of the process to become certified as a Michigan School-based Educator. Students at MSU should apply during the fall of their sophomore year. Students that are transferring into MSU should apply the fall semester that they arrive on campus. The following Website link includes directions related to the [declaration process](https://education.msu.edu/teacher-preparation/applying/applying-msu-students/).

**Scholarship opportunities for AFNR Education students**

Scholarship monies are important opportunities for students on track to become Agriculture, Food, and Natural Resources Education teachers. Currently, the following scholarship opportunities exist for potential and current AFNR Education students.

[FFA Related Scholarships](https://michiganffa.org/association/applications/).

**Undergraduate Degree Requirements**

The University requirements for bachelor’s degrees as described in the Undergraduate Education section of this catalog: 120 credits, including general elective credits, are required for the Bachelor of Science degree in Agriculture, Food, and Natural Resources Education.

The University’s Tier II writing requirement for the Agriculture, Food, and Natural Resources Education major is met by completing CSUS301. Those courses are referenced in the link below.

[The requirements for the College of Agriculture and Natural Resources for the Bachelor of Science degree](https://reg.msu.edu/AcademicPrograms/ProgramDetail.aspx?Program=AFNRE_BS1).

**Agriculture, Food, and Natural Resources Education Major**

All of the following courses [61 credits]

\_\_\_\_ANS 110 Introductory Animal Agriculture (4)

\_\_\_\_BS 161 Cell and Molecular Biology (3)

\_\_\_\_BS 162 Organismal and Population Biology (3)

\_\_\_\_BS 172 Organismal Biology Laboratory (2)

\_\_\_\_CEM 141 General Chemistry (4)

\_\_\_\_CEP 240 Introduction to Exceptional Learners (3)

\_\_\_\_CSS 101 Introduction to Crop Science (3)

\_\_\_\_CSS 210 Fundamentals of Soil Science (3)

\_\_\_\_CSUS 200 Introduction to Sustainability (3)

\_\_\_\_CSUS 222A Seminar in Instructional Theory I (1)

\_\_\_\_CSUS 222B Seminar in Instructional Theory II (1)

\_\_\_\_CSUS 222C Seminar in Instructional Theory III (1)

\_\_\_\_CSUS 300 Theoretical Foundations of Sustainability (3)

\_\_\_\_CSUS 301 Community Engagement for Sustainability (W) (3)

\_\_\_\_CSUS 316 Campus Apprenticeship in AFNRE (3)

\_\_\_\_CSUS 317 Foundations of Teaching AFNR (3)

\_\_\_\_CSUS 343 Community Food & Agriculture Systems (3)

\_\_\_\_CSUS 493 Professional Internship in Community Sustainability (6)

\_\_\_\_FOR 202 Introduction to Forestry (3)

\_\_\_\_HRT 203 Principles of Horticulture (3)

\_\_\_\_IBIO 355 Ecology (3)

\_\_\_\_IBIO 355L Ecology Laboratory (1)

One of the following [3 credits]

\_\_\_\_AFRE 100 Decision-making in the Agri-Food System (3)

\_\_\_\_AFRE 130 Farm Management I (3)

One of the following [3 credits]

\_\_\_\_CSUS 464 Environmental and Natural Resource Policy in Michigan (3)

\_\_\_\_CSUS 465 Environmental and Natural Resource Law (3)

All of the following [Teacher Education Certification, 12 credits]

\_\_\_\_CSUS 417 AFNR Apprenticeship/Clinical Experience (3)

\_\_\_\_CSUS 817 Instructional Design and Assessment in AFNRE (3)

\_\_\_\_CSUS 818 Theory and Practice of Program Planning in AFNRE (3)

\_\_\_\_CSUS 819 Instructional Theory and Practice in AFNRE (3)

All of the following [Non-Teacher Education Certification, 12 credits]

\_\_\_\_ANY XXX Elective credits (9)

\_\_\_\_CSUS 430 Non-Profit Org. Mgt. for Community Sustainability (3)

**OR**

\_\_\_\_CSUS 433 Grant Writing and Fund Development (3)

**Interim Occupational Certificate (IOC)**

Requirements for an Interim Occupational Certificate in Agriculture, Food, and Natural Resources Education include:

1. An earned bachelor’s degree;
2. Has a major or minor in the field of specialization in which the occupational certificate is being requested;
3. Has a minimum of two years (4,000 hours) of experience in the occupational area concerned or has completed a planned program of directed supervised occupational experience approved by the State Superintendent. The occupational experience shall be characterized as relevant (AFNR) and recent (6 years);
4. Has passed both the MTTC Professional Readiness Examination (PRE-Test) and appropriate subject area exam or exams available at the time of application;
5. Has successfully completed a minimum of 6 semester credit hours of professional or occupational education credit (CSUS417/CSUS817); and
6. The Interim Occupational Certificate is valid for teaching in those courses in which instruction is limited to the occupation specified on the certificate in approved occupational programs.

Each Interim Occupational Certification experience must be verified with three forms of documentation. These methods may include: W-9 tax documents, letters from supervisors, pay stubs, etc. Note that this is not an exhaustive list. Questions about the IOC or documentation process should be directed to Dr. Aaron McKim (amckim@msu.edu, 517-432-0318). **See below for a document to help you keep track of your IOC hours.**

**IOC Example Documentation**

There are many ways to provide the three forms of documentation that are required for the 4,000 hours needed for IOC certification. Below is a list of potential ways to document your recent and relevant work experiences:

W-2 Form Job/Position Description Journal

Letter of Commendation Animal Bill of Sale Pay Stubs

Letter of Recommendation Grain Harvest Bill of Sale Transcripts (Internship only)

Time Sheets Internship Assignments

Internship Projects and Papers

Letters verifying work experience from employers

Statements from clients or suppliers (self-employment)

**Acquisition of IOC Hours[[1]](#footnote-2)**

Candidates may use up to 3,000 hours earned from a combination of the following seven alternatives to meet the required 4,000 hours of relevant experience.

* ***Supervised Experiences*** (For-Credit Internships) – (up to 2,000 hours)
	+ - * 1. Must be completed through a planned program of directed and supervised experience by a postsecondary institution approved by MDE.
				2. Carry course credit indicated on the candidate’s official transcript.
				3. Be a planned and comprehensive experience in the candidate’s CTE specialty.
* ***Completion of the MSU CTE Teacher Certification Program*** – (up to 2,000 hours)
	+ - * 1. Student’s shall complete all academic requirements to complete the degree to receive these hours.
* ***Student Teaching*** – (up to 1,000 hours)
	+ - * 1. Student teaching placement must be in the specific CTE area for which the endorsement is being sought and within the state approved CTE program.
				2. Must be supervised by the recommending CTE educator preparation program and documented on the candidate’s official transcript.
* ***Occupational Assessment*** – (up to 2,000 hours)
	+ - * 1. The assessment must be specific to the CTE field and performance must be documented.
				2. The results must be retained by:

The candidate

The postsecondary institution recommending CTE certification

The school district applying for the Authorization

* + - * 1. A candidate who uses the CTE competency assessment for experience may NOT also use the test for establishing university academic credit.
* ***Business or Industrial Training Program*** – (up to 2,000 hours)
	+ - * 1. Evidence must indicate that the candidate participated in or instructed a business or industry training program directly related to the specific CTE program in which the ACA or certification is being sought.
* ***Postsecondary Instructor*** – (up to 2,000 hours)
	+ - * 1. Postsecondary instruction of a CTE program must be in the specific CTE area for which the Authorization or CTE endorsement is sought.
* ***Paraprofessional*** – (up to 1,500 hours)
	+ - * 1. Paraprofessional hours earned within an approved CTE program may be accepted towards the 4,000 required hours.

**Forms of documentation including: W-2’s, tax returns, job/position descriptions, letters verifying work experience from employers, and statements from clients or suppliers (self-employment)**

**A 4-Year Plan**

As a student, it is critical that you develop a 4-Year Plan of your academic studies at Michigan State University. While developing a 4-year Plan it is very important that you consider: University, College of Agriculture and Natural Resources, AFNRE Major, and Minor requirements to obtain your degree. Additionally, students should consider prerequisites that are required prior to taking the next course in the sequence. Questions and concerns should be addressed to the AFNR Education Academic Advisor (Dr. Michael W. Everett, everettm@msu.edu, 517-581-5888).

**A 4-Year Plan For (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)**

**Fall Freshman Spring Freshman Summer Freshman**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_ Credits \_\_\_\_\_ Credits \_\_\_\_\_ Credits**

**Fall Sophomore Spring Sophomore Summer Sophomore**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_ Credits \_\_\_\_\_ Credits \_\_\_\_\_ Credits**

**Fall Junior Spring Junior Summer Junior**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_ Credits \_\_\_\_\_ Credits \_\_\_\_\_ Credits**

**Fall Senior Spring Senior Summer Senior**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_ Credits \_\_\_\_\_ Credits \_\_\_\_\_ Credits**

**\_\_\_\_\_\_\_\_\_\_TOTAL CREDITS (Minimum of 120 credits to graduate)**

**A 4-Year Plan for AFNRE Teaching Major**

**Fall Freshman Spring Freshman Summer Fr/So**

CSUS 200 (3)#\* \* AFRE 100 or 130 (3)\*#

CSUS 222A (1)\*\* ANS 110 (3)\*#

MTH 103 (3)\* CEM 141 (4)\*\*

CSS 101 (3)\*# IAH 20X (4)\*

WRA 101 (4)\*

**14 Credits 14 Credits 0 Credits**

**Fall Sophomore Spring Sophomore Summer So/Jr**

BS 161 (3)\*\* BS 162 (3)\*\*

CSUS 222B (1)\*\* BS 172 (2)\*\*

HRT 203 (3)\*# CEP 240 (3)\*\*

EC 201 or 202 (3)\* CSS 210 (3) \*#

ISS 2XX (4)\* CSUS 301 (3)#\*

 FOR 202 (3)\*#

**14 Credits 17 Credits 0 Credits**

**Fall Junior Spring Junior Summer Jr/Sr**

CSUS 222C (1)\*\* STT 200 (3)\*

CSUS 464 (3)\*# CSUS 317 (3)\*

Elective (3) CSUS 343 (3)

IBIO 355 (3)\*\* CSUS 433 (3)

IBIO 355L (1)\*\* ISS 3XX (4)\*

IAH 2XX (4)\*

**15 Credits 16 Credits 0 Credits**

**Fall Senior Spring Senior Summer Post Sr**

CSUS 300 (3)#\* CSUS 316 (3)\*

CSUS 417 (3)\* CSUS 493 (6)\*

CSUS 817 (3)\* CSUS 819 (3)\*

CSUS 818 (3)\* Elective (3)

Elective (3)

**15 Credits 15 Credits 0 Credits**

**120 Credits (Elective Credits 9)**

\*University Requirements \*College Requirements

#Community Sustainability Core \*AFNRE Degree Requirements

\*Teacher Education #Technical Agriculture

**A 4-Year Plan for AFNRE Major Non-Teaching Major**

**Fall Freshman Spring Freshman Summer Fr/So**

CSUS 200 (3)#\* \* AFRE 100 or 130 (3)\*#

CSUS 222A (1)\*\* ANS 110 (3)\*#

MTH 103 (3)\* CEM 141 (4)\*\*

CSS 101 (3)\*# IAH 20X (4)\*

WRA 101 (4)\*

**14 Credits 14 Credits 0 Credits**

**Fall Sophomore Spring Sophomore Summer So/Jr**

BS 161 (3)\*\* BS 162 (3)\*\*

CSUS 222B (1)\*\* BS 172 (2)\*\*

HRT 203 (3)\*# CEP 240 (3)\*\*

EC 201 or 202 (3)\* CSS 210 (3) \*#

ISS 2XX (4)\* CSUS 301 (3)#\*

 FOR 202 (3)\*#

**14 Credits 17 Credits 0 Credits**

**Fall Junior Spring Junior Summer Jr/Sr**

CSUS 222C (1)\*\* CSUS 300 (3)#\*

CSUS 464 (3)\*# CSUS 317 (3)\*

Elective (3) CSUS 343 (3)

IBIO 355 (3)\*\* CSUS 433 (3)

IBIO 355L (1)\*\* ISS 3XX (4)\*

IAH 2XX (4)\*

**15 Credits 16 Credits 0 Credits**

**Fall Senior Spring Senior Summer Post Sr**

400/800-level Selective (3) 400/800-level Selective (3)

400/800-level Selective (3) CSUS 316 (3)\*

Elective (3) CSUS 493 (6)\*

Elective (3) Elective (3)

STT 200 (3)\*

**15 Credits 15 Credits 0 Credits**

**120 Credits (Elective Credits 21, 9 credits must be at the 400/800 level)**

\*University Requirements \*College Requirements

#Community Sustainability Core \*AFNRE Degree Requirements

\*Teacher Education #Technical Agriculture

**Linked BS/MA program**

This program links the AFNRE B.S. undergraduate curriculum with a AFNRE M.A. graduate program curriculum with the help of a graduate program academic advisor. In as little as 12 months after receiving their B.S. degree, students can complete a M.A. degree program in Agriculture, Food, and Natural Resources Education using this program. Application to the program requires a student to be **majoring in Agriculture, Food, and Natural Resources Education** and to have **maintained a 3.5 GPA** in undergraduate courses completed to date. Each completed Linked BS/MA Program application requires (4) important pieces. Please note that dual enrollment is **NOT RETROACTIVE**.

**1) A completed request for dual application.**

The ([Linked BS/MA Program Application](https://reg.msu.edu/read/pdf/dualform.pdf)) is available on the Registrar’s website. To complete the form requires items 2) through 4) below. An application including 2) through 4) must be submitted at least 2 semesters prior to completion of a B.S. program (Beginning of Fall Senior Year).

**2) A Graduate Program Advisor.**

This can be any AFNRE faculty who can advise a graduate student. In general, that means tenure stream faculty. Good choices are those faculty with whom the prospective student has conducted research, or those whose research is of interest to the student.

**3) A Graduate Program Academic Plan (Course Program)**

This document lists the courses the student plans to take. The student chooses these courses with the help of the program advisor. The Graduate Program includes a list of three courses (max) that are in the students’ Undergraduate Course Plan and are waived from the graduate program. The courses waived should be related to the Graduate Program and "links" the two programs together. The Application Form required the student to explain that linkage.

**4) A Graduate Program Application in SLATE**

This allows the AFNRE MA Graduate Program to formally admit the student so that the student can be assured that the "Linked BS/MA Program" can be completed. The admission will normally be provisional and list conditions that must be satisfied (for example, completing the BS program, minimum GPA on graduation) in order to be admitted. See the AFNRE MA Program Coordinator for help regarding the graduate program application process. (<https://explore.msu.edu/apply/>).

**Example AFNRE M.A. Programs with AFNRE B.S. Linkages**

**AFNRE MA (Teaching w/minor and Teaching w/o minor)**

**Fall Senior Spring Senior Summer Grad 1**

CSUS 817 (3)\*# CSUS 819 (3)\*# CSUS 860 or CSUS861 (3)\*

CSUS 818 (3)\*# CSUS 863 (3)\*

**6 Credits 3 Credits 6 Credits**

**Fall Grad 1 Spring Grad 1 Summer Grad 2**

CSUS 864 (3)# Education Conc (3)# CSUS 860 or CSUS861 (3)\*

Education Conc (3)#

 CSUS 898 (3)\*

**3 Credits 3 Credits 9 Credits**

**AFNRE MA (Non-Teaching Certification)**

**Fall Senior Spring Senior Summer Grad 1**

400/800-level Elective (3)\*# 400/800-level Elective (3)\*# CSUS 860 or CSUS861 (3)\*

400/800-level Elective (3)\*# CSUS 863 (3)\*

**6 Credits 3 Credits 6 Credits**

**Fall Grad 1 Spring Grad 1 Summer Grad 2**

CSUS 864 (3)# Education Conc (3)# CSUS 860 or CSUS861 (3)\*

Education Conc (3)#

 CSUS 898 (3)\*

**3 Credits 3 Credits 9 Credits**

**Interim Occupational Certificate Hours and Documentation**

Interim Occupational Certificate (IOC) hours must be **RECENT** (within last 10 years prior to applying for your teaching certificate in May of your internship year (\_\_\_\_\_\_\_\_\_). Additionally, hours must be **RELEVANT** or within the field of agriculture and natural resources. Consult with Dr. Aaron McKim (amckim@msu.edu, 517-432-0318) to determine relevance of IOC hours.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Interim Occupational Position/Job Description** | **Number of Hours** | **Documentation Type #1** | **Documentation Type #2** | **Documentation Type #3** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Non-Teaching Internships**

Teaching and non-teaching students are required to complete internships. Teaching students participate in a semester student-teaching experiences while non-teaching students participate in a professional internship that aligns with one’s career goals.

Students are encouraged to participate in an internship each summer while a student at Michigan State University. Additionally, AFNRE students may also consider MSU Education Abroad experiences in the areas of agriculture, food, and natural resources broadly defined.

Students are also encouraged to participate in internships that build on their technical content knowledge in the areas of (animal, plant, ag business, or natural resources. Internships may include, however are not limited to examples such as:

Monsanto Dekalb Seed Pioneer Seed Michigan Farm Bureau

Michigan Parks Corteva Agriscience John Deere Case IH

The Andersons Beck Seeds MSU Extension Crop Production Services

MDNR MDEQ MDARD County Parks

State/Federal Parks Helena Michigan Corn Grain Elevators

Note that this is not an exhaustive list, but only a few of the many examples. Please consult with AFNRE faculty to determine an appropriate internship.

Michigan State University’s College of Agriculture and Natural Resources provides valuable information about internship opportunities through job fair opportunities (see the CANR website). If you plan on attending these fairs to find internship opportunities a strong resume and professional appearance is strongly recommended.

**Calendar of Important Events**

**High School Junior Year**

 Apply for the Challenge 24 Program (January)

 Take SAT

 Attend Challenge 24 Program (If selected, July)

 Collect IOC hours and documentation (all year)

**High School Senior Year**

 Apply to Michigan State University (August prior to senior year)

 Apply for the Michigan FFA AFNRE CDE Contest (September-October)

 Apply for Financial Aid (January)

 Freshman Orientation also known as AOP (June-August)

 Collect IOC hours and documentation (all year)

**MSU Freshman Year**

CSUS222A (Fall)

 Collect IOC hours and documentation (all year)

**MSU Sophomore Year**

 CSUS222B (Fall)

 Declaration to the Teacher Preparation Program (College of Education) (September)

 Collect IOC hours and documentation (all year)

**MSU Junior Year**

CSUS222C (Fall), CSUS317 (Spring)

If a **Transfer student**, Declaration to the Teacher Preparation Program (September)

 Submit student teacher preference paperwork

 MTTC Subject Major Area Test (ANR - HX) – Summer after Junior year (\*See Below)

 MTTC Biology test (IA) – Summer after Junior year (Note – Not required)

 Collect IOC hours and documentation (all year)

 Apply for Dual/Linked Program (Spring Semester)

**MSU Senior Year**

CSUS417 (Fall), CSUS817 (Fall), CSUS818 (Fall), CSUS316 (Spring), CSUS493 (Spring),

 and CSUS819 (Spring)

 Linked Program Application (See pages 10)

 Work with MSU Faculty and Michigan AFNR Teachers to develop an appropriate placement

 Student-Teaching experience (Spring)

 Complete all coursework as required by MSU

 Collect IOC hours and documentation (all year)

\*Please go to the following links for MTTC information.

<https://education.msu.edu/academics/undergraduate/required-mttc-majors/>

<https://www.mttc.nesinc.com/Home.aspx>

**I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have read and acknowledge the calendar requirements for the AFNRE Program in the AFNRE Handbook.**

**Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**AFNR Education Student Checklist**

|  |  |
| --- | --- |
| **Have you…** | **YES or NO** |
| Applied for the Challenge 24 Program (H.S. Soph or Jr Year)? |  |
| Applied for the Michigan FFA CDE (H.S. Fresh – Senior Year)? |  |
| Applied to Michigan State University? |  |
| Applied for Financial Aid? |  |
| Applied for AFNRE Scholarships? |  |
| Met with your AFNRE Major adviser? |  |
| Developed a 4-Year Plan? |  |
| Declared to the Teacher Preparation Program (College of Education)? |  |
| Selected a Teaching Minor (If appropriate)? |  |
| Met with your Teaching Minor adviser (If appropriate)? |  |
| Met with your adviser in the College of Education? |  |
| Taken the MTTC (Subject Area MAJOR) Test? |  |
| Taken the MTTC (Biology – IA) Test? (Note – Not required) |  |
| Determined your placement for your internship year? |  |
| Apply for linked AFNRE BS/MA Program? |  |
| Collected all of your IOC documents for certification (4,000 hrs R/R)? |  |
| Applied for your Provisional Teaching Certificate? |  |
| Applied for your Interim Occupational Certificate? |  |

**I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have read and acknowledge the programmatic requirements for the AFNRE SBAE Program in the AFNRE Handbook.**

**Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Networking Guide**

Networking is an important part of the AFNRE profession. Networking is defined as information gathering utilizing family, friends, teachers, community members, and AFNRE career professionals. When networking, seek to gather as much information about the AFNRE career field as possible. Remember the more people you network with, the more successful you will likely be in your professional careers.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Position, Title, and Affiliation** | **Email Address** | **Mailing Address** | **Phone** | **Record of Contact** **(Date and Comment)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**MSU AFNR Education Team Faculty Bios**

**Dr. Michael Everett** (everettm@msu.edu, 517-581-5888)

Michael Everett is a Professor of Practice, Undergraduate Adviser, and AFNRE MA Program Coordinator within the Department of Community Sustainability at Michigan State University. Michael has 10 years of teaching Agriculture, Food, and Natural Resources Education at the secondary level and holds a Michigan Professional Teaching Certificate in Agriculture and Natural Resources and Mathematics. Michael's teaching assignment includes courses in the environment, sustainability, organizational management, and teaching and learning. Michael’s research interests include the use of socio-psychological methods to improve undergraduate education.

**Educational Background**

B.A., Mathematics, Olivet College

M.S., Crop and Soil Science, Michigan State University

Ph.D., Community, Agriculture, Recreation, and Resource Studies, Michigan State University

**Mr. Mark Forbush** (forbushm@msu.edu, 989-277-9249)

Mark Forbush is an Academic Specialist in the Department of Community Sustainability at Michigan State University. Mark has over 30 years of teaching Agriculture, Food, and Natural Resources Education and holds a Michigan Professional Teaching Certificate in Agriculture and Natural Resources and Science. Mark also serves as the Michigan State Advisor for Agriculture, Food, and Natural Resources Education as part of the Michigan Department of Education and Career and Technical Education and teaches courses preparing pre-service AFNRE teachers to become school-based AFNRE teachers.

**Educational Background**

B.S., Agricultural and Natural Resources Education

M.S., Agricultural and Natural Resources Education

**Dr. Aaron McKim** (amckim@msu.edu, 517-432-0318)

Aaron McKim is an Assistant Professor in the Department of Community Sustainability at Michigan State University. Aaron’s teaching certification is in Indiana, where he taught middle school and high school agriculture. At Michigan State, Aaron teaches courses in agriculture, food, and natural resources education, leadership, and community sustainability. Aaron’s research focuses on how teachers combine agriculture, leadership, and science content within their classrooms.

**Educational Background**

B.S., Agricultural Education, Purdue University

M.S., Agricultural Education, Oregon State University

Ph.D., Science Education, Oregon State University

**Dr. Matt Raven** (mraven@msu.edu, 517-432-0293)

Matt R. Raven is a Professor in the Department of Community Sustainability at Michigan State University. Dr. Raven obtained his Ag Specialist and Life Science Single Subject teaching credentials from University of California at Davis. Prior to Michigan State University he served on the faculty at Montana State University and Mississippi State University. His research interests include instructional technologies and their educational efficacy, teaching and learning in higher education, and knowledge sharing and creation in social networks with emphasis on diffusion and adoption of innovations.

**Educational Background**

B.S., Plant Science, University of California at Davis

M.S., Agricultural Education, Kansas State University

Ph.D., Agricultural Education, The Ohio State University

**Dr. Tiffany Rogers-Randolph** (roger187@msu.edu, 269-921-0583)

Tiffany Rogers-Randolph is the Michigan FFA Executive Secretary. Tiffany has 10+ years of experience in non-formal education and facilitation and she taught agricultural communications at the post-secondary level for 7 years. Among other responsibilities as State FFA Executive Secretary, she works closely with the state FFA officer team, directs the planning of the annual FFA State Convention, and coordinates the many leadership and career development events that occur throughout the year. Michigan’s 122 FFA chapters have more than 7,500 members.

**Educational Background**

B.S., Agribusiness Management, Michigan State University

M.S., Agricultural Education and Communication, University of Florida

Ph.D., Agricultural Education and Communication, University of Florida

1. CTE: Recent and Relevant Experience Requirements, Michigan Department of Education, May 2018 [↑](#footnote-ref-2)