

# Mitchell Technical Institute

## Annual Program Assessment Review

Department Head: Rick Kriese

Program: Agricultural Technology

Date: 1/8/2019

As a department, please review the following direct and indirect measures and provide the responses requested.

### Direct Measures

#### A. Program Learning Outcomes

*Program learning outcomes meet industry and community trends and support the mission of Mitchell Technical Institute.*

1. Date of review: 1/8/2019
2. Explain how outcomes were reviewed this year (i.e., input from advisory committee, instructors, students, etc.) and changes made, if any:

In 2018, recommendations were used from the Ag Technologies Advisory Committee, course instructors, course evaluations and internship hosts.

3. Outcomes are up-to-date in WIDS and on the program's web page. Yes  
 No

#### B. Course Syllabi

*Course syllabi in the program include the following components (check the box if included):*

Course title and number	<input checked="" type="checkbox"/>
Credit hours	<input checked="" type="checkbox"/>
Instructor	<input checked="" type="checkbox"/>
Instructor office hours/contact information	<input checked="" type="checkbox"/>
Prerequisites	<input checked="" type="checkbox"/>
Course description	<input checked="" type="checkbox"/>
Competencies	<input checked="" type="checkbox"/>
Required Text(s)	<input checked="" type="checkbox"/>
Grading criteria	<input checked="" type="checkbox"/>
ADA statement	<input checked="" type="checkbox"/>
Academic Integrity Policy	<input checked="" type="checkbox"/>

1. Date of review:
2. Explain which syllabi were reviewed this year, input received from advisory committee, instructors, students, etc., regarding course objectives and textbooks used, and changes made, if any:

AGT 260 Advanced Commodity Marketing class was evaluated by instructor Janelle Guericke to determine what areas needed to be improved. It was determined that more time would be spent on pre-harvest and post-harvest marketing plans.

3. Syllabi are up-to-date in WIDS. Yes  No

### C. Program Competencies

*The program has a list of identified competencies.*

1. Date of review:
2. Explain how competencies were reviewed this year (i.e., input from advisory committee, instructors, students, etc.) and changes made, if any:

Ag Technology Instructors created competencies for Agronomy, Animal Science and Ag Business programs. These were shared with the Ag Technology Advisory Board, students, and instructional support staff.

3. Competencies are up-to-date in WIDS. Yes  No

### D. Course Assessments

*Instructors in the program will a.) use a variety of assessment instruments and tools; b.) assess identified program objectives and competencies; and c.) include assessment of higher level thinking skills, such as application, analysis, synthesis and evaluation.*

1. Complete the checklist indicating which kinds of assessments are used in your program.

Types of Assessment	Used by instructors in program
Oral examinations/presentations	<input checked="" type="checkbox"/>
Written essays	<input checked="" type="checkbox"/>
Written reports	<input checked="" type="checkbox"/>
Examinations	<input checked="" type="checkbox"/>
Quizzes	<input checked="" type="checkbox"/>
Comprehensive final exams	<input checked="" type="checkbox"/>
Journals	<input type="checkbox"/>
Peer evaluations	<input checked="" type="checkbox"/>
Self evaluations	<input checked="" type="checkbox"/>
Class participation	<input checked="" type="checkbox"/>
Portfolio projects	<input checked="" type="checkbox"/>
Capstone projects	<input type="checkbox"/>

Other projects	<input checked="" type="checkbox"/>
Video tapes of student mastery	<input checked="" type="checkbox"/>
Lab demonstrations	<input checked="" type="checkbox"/>
Simulations	<input checked="" type="checkbox"/>
Clinical/internship observations	<input checked="" type="checkbox"/>

2. Are assessments used in the program matched to the objectives/competencies for the program? Yes  No

3. Explain changes in the assessments used in your program since your last review (including input received and rationale):

Instructor Dr. Lori Repenning included a Participation rubric in Beef Management class as a grading measurement.

4. Give examples of how assessments used in the program reflect higher level thinking skills, such as application, analysis, synthesis and evaluation.

In Livestock Disease the Final project for students involved creating a vaccination protocol. Students had to pick their species and devise a regimen for vaccinating all stages of that species to protect them from disease. This ties the semester's knowledge into real-world application.

#### E. Certification

*If available, the program uses industry and/or program certification tests to assess student mastery of learning objectives or competencies.*

1. List any industry or program certification tests taken by students or graduates of your program in the past year (Jan-Dec).

Certification Tests	# Testing	# Passing	Pass Rate
CDL	44	38	86
Beef Quality Assurance		100	1.#INF
Commercial Applicator License	49	37	76
CPR	47	44	94

2. As you reviewed results of certification tests, what curriculum changes were made in your program?

No changes were made but state applicator tests were changed from 2017.

#### F. Program Internships/Externships

*If applicable, the program uses internships, externships, or on-the-job training*

*to assess student mastery of learning objectives or competencies.*

1. How do you evaluate program competencies or learning objectives during internship/externship experiences?

Student and employer evaluations and weekly reports of interns are evaluated by course instructors as well all students internships are personally visited by an Ag Technology instructor.

2. As you reviewed results of internship/externship evaluations, what curriculum changes were made in your program?

We are in the process of improving the internship packet that students complete to be approved to complete an internship. Timeliness, attendance and communication skills are emphasized in core classes.

#### **G. Program Outcome Assessment**

*Program outcome assessment results were used to revise and improve instruction and curriculum both for current students and future cohorts in this program.*

1. What program outcome was assessed this year?

AgBusiness -Apply problem solving skills to various agriculture situations.

Agronomy -Recognize nutrient deficiencies in various crops.

Animal Science - Demonstrate basic knowledge of livestock husbandry including feeding and care of livestock.

2. How did you assess student achievement of this program outcome? (What measure was used?)

AgBusiness -Complete simulation in Farm Accounting using EasyFarm Software.

Agronomy -N,P,K exam results and Final exam results.

Animal Science - Average grade of Livestock Disease, Farm Animal Reproduction and Nutrition.

3. What is the benchmark for achievement of this outcome?

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AgBusiness -Students will achieve an 80% level of proficiency using EasyFarm Software.

Agronomy -Benchmark was at 85% exam score.

Animal Science - Students will achieve an 85% average in the three classes stated in question 2.

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**4. Explain the results and your analysis of the previous year's data on this outcome. (Did your students meet the benchmark? If not, what factors might be affecting student achievement of this outcome? Is there further assessment needed to understand and address why the program is not meeting the benchmark?)**

AgBusiness -Section 1 of Farm Accounting achieved 35/43 for a B average. (met expectation) Section 2 of Farm Accounting achieved 33/43 for a C average. (Did not meet expectation) This was determined from a final exam on EasyFarm which required students to lookup data that is produced from the information that students entered.

Agronomy -N,P,K exam avg. score was 79.76% and the Final exam score average was 87.55% - The benchmark was set at 85% - The average final course grade was 90.08%.

Animal Science - The average of all three classes was a 84.6% which was slightly below the expectation. Broken down per class the results were: Nutrition 78.5%; Reproduction 78.9% and Livestock Disease 85.6%.

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**5. Explain how you will use assessment results to make changes in your program.**

AgBusiness -Students will take a quiz after completing every three months of the 12 month simulation. This will allow students to identify problems and solve at an earlier stage.

Agronomy -continue to reinforce the importance of nutrient requirements for our locally grown crops and to identify deficiency symptoms for these crops.

Animal Science - Focus in 2019 will be to concentrate on the Livestock Nutrition class. Instructor will incorporate more hands-on activities to boost the comprehension of material.

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**6. If you made changes to your program last year based on program outcome assessment, what has been the impact on student achievement following the**

changes?

Not applicable

If applicable, what further changes are needed to improve achievement in this program outcome?

*[Pre-2017 Closing the Loop archived results]*

## Indirect Measures

### H. **Enrollment**

*Five-year data for this program will demonstrate that the program's 10-day count is at or above 75% of its enrollment cap.*

Does the most recent year's data meet this benchmark? If not, explain a single-year anomaly or explain what strategies your program will implement to address a pattern (two or more years) of not reaching this benchmark.

Ag Technology met the benchmark with 104%.

### I. **Retention**

*Five-year data for this program will demonstrate that 75% or more of enrolled students complete their program or return to MTI the following year.*

Does the most recent year's data meet this benchmark? If not, explain a single-year anomaly or explain what strategies your program will implement to address a pattern (two or more years) of not reaching this benchmark.

The Ag Technology department met the benchmark with 89%.

### J. **Graduation**

*Five-year data for this program will demonstrate that 70% or more of exiting students complete this program with a diploma or degree.*

Does the most recent year's data meet this benchmark? If not, explain a single-year anomaly or explain what strategies your program will implement to address a

pattern (two or more years) of not reaching this benchmark.

The Ag Technology department met the benchmark with 84%.

**K. Placement**

*Five-year data for this program will demonstrate that 80% or more of completing students in the labor market obtain employment in the program field.*

Does the most recent year's data meet this benchmark? If not, explain a single year anomaly or explain what strategies your program will implement to address a pattern (two or more years) of not reaching this benchmark.

The Ag Technology department met the benchmark with a 92%.

**L. Student Satisfaction**

*Students in this program indicate an excellent level of satisfaction with their instruction, as demonstrated by no gaps exceeding 1.0 on questions related to instructional effectiveness on the most recent Noel-Levitz Student Satisfaction Inventory survey.*

If this benchmark is not met, what strategy or strategies will be implemented to address this measure?

Students evaluated course instructors and results determined that no strategies would need to be implemented.

**M. Alumni Satisfaction**

*Institutional surveys of alumni indicate an 80% or greater satisfaction with their career preparation in this program.*

If this benchmark is not met, what strategy or strategies will be implemented to address this measure?

Students were 76.5% very satisfied and 23.5% satisfied.

**N. Employer Satisfaction**

*Employers respond favorably 80% of the time when surveyed about the quality of this program.*

If this benchmark is not met, what strategy or strategies will be implemented to address this measure?

25% of the hired graduates exceeded the expectation of employers and 75% met the expectations of the employer in the industry.

**O. Professional Development**

*Instructors in this program demonstrate a commitment to their own professional development by completing continuing education activities each year.*

What professional development activities have instructors in this program completed in the last year?

Instructor Dr. Lori Repenning attended the AVMA Meeting in Denver 2018. Instructor Janelle Guericke attended update meetings for Crop Insurance and completed continuing ed credits in Real Estate and Commodity Brokerage. Instructor Rick Kriese completed his CCA license continuing education. All instructors made industry site visits.

How were these activities used to improve this program?

New ideas are incorporated into the classroom from instructors' continuing education.

**P. Professional Organizations**

*Instructors in this program are members of professional organizations and encourage their students to pursue such memberships.*

Do faculty members belong to professional organizations associated with this program? Yes  No

If no, explain why.

Are students made aware of the professional organizations for their career field?

Yes  No

**Q. Advisory Committee Recommendations**

*Suggestions and changes recommended by this program's advisory committee are addressed and implemented by the program.*

What changes will be made to this program based on feedback provided at this year's advisory committee meeting(s)?

Instructors have emphasized good work ethic, timeliness and professionalism to the students.

Indicate the personnel responsible for implementing the changes:

instructors

Implementation date: 1/8/2019

**R. Program Improvement Plans**

*As you review this past year, what changes do you propose for the next school year that will affect the program budget?*

Larger travel budget with larger enrollment continues to be a concern.

Anticipated costs:

\$5000