PROGRAM REVIEW

Department: John Deere

Date of Program Review: 2023

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Recommended Timeline

- Program Review document will be completed and submitted to the Instruction Office by December 31st.
- Vice President of Academic Affairs and Director of Institutional Effectiveness will complete the summary report and send it to faculty by April 15th.
- The faculty responsible will review the report, provide any follow up information and make comments within seven days of receiving the report.
- A meeting will be scheduled with VP of Academic Affairs and Director of Institutional Effectiveness to develop an action plan within three weeks of the review.
- Programs under review will present a summary of their program findings and an Action Plan to the Cabinet Committee in August/September of the following year.

ACADEMIC PROGRAM/DISCIPLINE REVIEW
Fort Scott Community College

Introduction to Program

I. Scope

A. Program Relation to College Mission, Core Values, and Strategic Plan:

1. How do the goals and measurable objectives for the program/discipline help the college meet its mission, core values, and strategic plan?

Fort Scott Community College and Fort Scott Community College John Deere TECH fulfills their mission through the following goals:
• Provide affordable academic, technical and occupational curricula to meet student needs and the need for service technicians at local, state and regional John Deere Dealerships throughout the Midwest of the United States.
• Provide lifelong learning opportunities to fulfill the cultural and educational desires of the communities that depend on John Deere dealerships to keep their agricultural equipment maintained and working.
• Provide students professional guidance and services which support the educational process and needs of famers using John Deere and other manufactures of agricultural equipment.
• Provide students and the community with opportunities for leadership development, physical improvement and social growth at the John Deere dealerships that sponsor them as FSCC John Deere TECH students.
• Demonstrate excellence through the ongoing process of evaluation, development, and effective use of current human, financial, physical and institutional/John Deere dealership resources
• Provide focus and direction through the Strategic Planning Process and the future landscape and evolution of John Deere dealerships and farming technologies.
• Attract, retain and motivate qualified personnel and service technicians for local, state and regional John Deere Dealerships throughout the Midwest of the United States.
• Foster a mutually supportive relationship between the college and the community and all departments (Service, Parts and Sales Departments) at John Deere dealerships.
• Demonstrate integrity in all practices and relationships both in the customer-oriented setting at a John Deere dealership and in each John Deere service technician's individual life.
• Instructors are continually attending John Deere training from training centers and completing online training. We are required by John Deere to complete 48 hours of continuing education.

2. What specific goals of the strategic plan are affected by this? Please explain.

Our program goals at FSCC John Deere Tech meet all 5 of our strategic goals. We have ways of engaging community and dealerships in our programs. We also promote

students to be the best technicians at the dealerships and provide extra projects to complete if the student chooses to.

B. Program/Discipline Demand/Need:

If applicable, provide any advisory board meeting minutes.

1. **Describe the need for the program/classes based on regional demands.**

The demand for technicians at the dealerships is very high. Most dealerships need to hire at least 2 technicians on average. John Deere is also pushing the dealerships to sponsor at least 1 student per dealerships to send to a John Deere Tech program.
Below are two different links for the salary and outlook for Ag Technicians.

2. **Is program revision needed? If yes, provide a detailed rationale supporting the program change.**

No

3. **Describe how the revised program differs from the current one?**

N/A

C. Program/Discipline Analysis:

1. **What procedures are used to ensure that course content is up-to-date?**

As John Deere Tech instructors we are attending continuing education course frequently. The John Deere training facilities will also provide us with training content and training aids to ensure the students are seeing the latest technology available. Every fall both John Deere Tech instructors attend annual training at a John Deere training facility to be instructed on new technology and collaborate with other instructors from John Deere Tech programs. John Deere also sends the program 5 brand new tractors each year for the students to train on. We also have 2 advisory board meetings made up of John Deere Dealership personnel, where the representatives make suggestions for changes in the program.

2. **What is the process for textbook review? Please list the book(s) and ISBN for each course.**

Every year I use a John Deere website to search the latest books. John Deere has specific books we are to use, I make sure they are the latest edition.

3. What methods of instruction are used to meet the goals and objectives of courses in the program/discipline? Please describe two different sample lessons used within different courses in the program.

- Lecture Instruction
- Lab/Lecture Instruction
- Lab Demonstrations
- Individual Lab Activities
- Cooperative Learning Lab Activities
- John Deere University web based training (WBT'S)

In A/C class we will lecture about a topic, then move to the shop to see a demonstration, and then the student completing lab work about the topic from lecture.
In Equipment Diagnostics class the students will engage in lecture, then move to the shop for further lecture and demonstrations, and finally the students will be required to diagnose a failure in a machine using what they learned in the demonstrations.

4. How do you ensure appropriate academic rigor and consistency of course content in all modalities?

Dale and I are continually evaluating our courses. We are continually collaborating between each other and John Deere Service managers to ensure we are meeting industry standards and expectations for the student when they finish a course or the program.

D. Program Assessment:

1. What are the program outcomes?

1. Students will be able to understand and diagnose electrical and electronic failures in John Deere equipment.

2. Students will be able to understand and diagnose hydraulic failures in John Deere equipment.

3. Students will be able to navigate, reprogram, and perform test using John Deere's Service Advisor.

4. Students will be able to run test, diagnose, and repair power train systems in John Deere equipment.

5. Students will be able to run test, diagnose, and repair failures with-in engine and fuel systems on John Deere machines.

6. Students will be able to run test, diagnose, and repair air conditioning system failures on John Deere machines.

2. What is the process for program and course level assessment?

We have the program outcomes defined, but will not start assessing them until next semester.

The courses level assessments are done by the following:

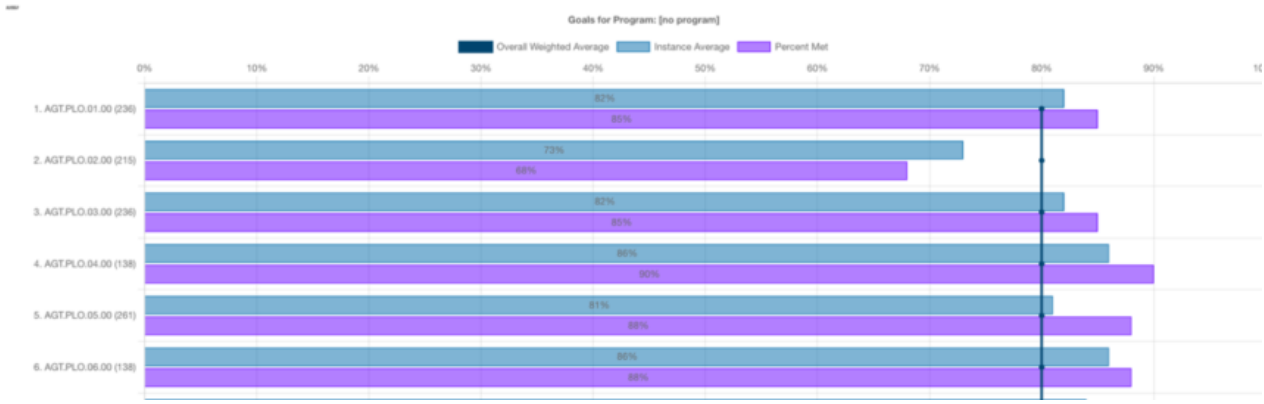
We use cognitive assessments in the form of daily quizzes and unit test.

The students are also assessed by students completing labs correctly and in a timely manner.

3. What are the findings of outcomes assessment reports from the department since the last program review? (Program Compilation Summaries/Course Assessment Reports)

We are finding our students have been improving on the hands-on portion of labs. For instance, in A/C class, the students have had more labs added that pertains to adding and removing refrigerant. Since I have implemented more labs around adding and removing the refrigerant, the hands-on testing at the end of the semester has improved greatly.

AY 2022-2023



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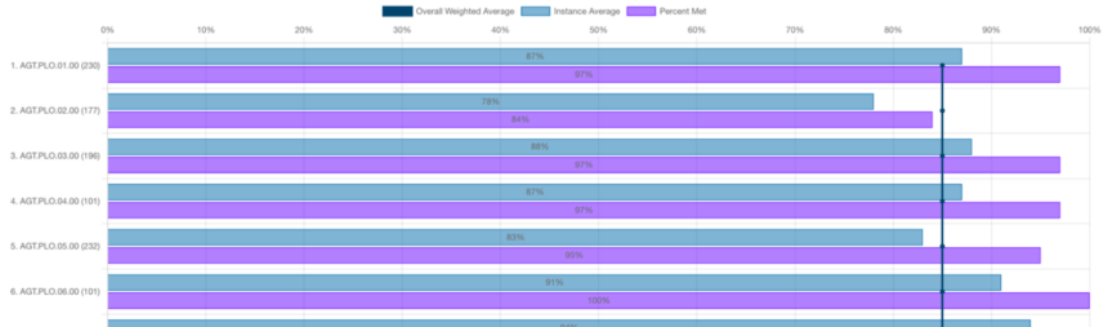

Program: Ag: John Deere Tech		**Fall 2022 and Spring 2023**	**Submitted By: Dale Griffiths**
Program Learning Outcomes	**Means of Assessment and Benchmark**	**Summary of Data Collected and Findings**	**Use of Results**
2. Understand and diagnose hydraulic failures in John Deere equipment.	Means of Assessment: Outcomes rubrics: **AGT2013** CLO1, CLO2, CLO3 **AGT2033** CLO1,CLO2,CLO3,CLO4,CLO5, CLO6,CLO7,CLO8,CLO9, CLO10,CLO11 **AGT2073** CLO1,CLO2,CLO3,CLO4 **AGT2083** CLO1, CLO2,CLO3,CLO4,CLO5,CLO6,CLO8,CLO9 **AGT 2093** CLO1,CLO2,CLO3,CLO4,CLO5,CLO6 Benchmark: • 80%, or greater, of students meet the standards for this program level outcome.	After reviewing assessment data from the 2022 – 2023 academic year, faculty members in the John Deere Tech Department identified Program Learning Outcome (PLO) #2: Understand and diagnose hydraulic failures in John Deere equipment for improvement. The report showed the following percents of the students assessed met or exceeded the benchmark of 80% on the assessment: AY2022-2023: Aggregated Data: 68% Disaggregated data: **AGT2013** CLO1 48%,CLO2 no data, CLO3 38% **AGT2033** CLO1 44%,CLO2 72%, CLO3 44%, CLO4 44%, CLO5 44%, CLO6 44%, CLO7 100%, CLO8 100%, CLO9 100%,CLO10 100%, CLO11 100% **AGT2073** CLO1 89%,CLO2 89%,CLO3 89%, CLO4 89% **AGT2083** CLO1 64%, CLO2 64%, CLO3 95%, CLO4 95%, CLO5 95%,CLO6 95%, CLO7 95%,CLO8 64%,CLO9 64%, **AGT2093** CLO1 83%,CLO2 83%,CLO3 83%,CLO4 83%,CLO5 83%	Action Plan: Faculty noted that students in general performed well on course assessments, but when they took the certification test, a high stakes test, the pressure on students may have negatively impacted their performance, resulting in performance that did not really reflect their skill set for the course outcomes, and consequently the program learning outcome. The faculty discussed some strategies they have implemented in some courses to help students prepare for the high-stakes John Deere certification tests. One instructor created a game-like strategy to facilitate student learning through creating Kahoot games to quiz students over important course information. The game-like atmosphere helped students relax as instructors quizzed students over important course information. Faculty noted that they will create Kahoot games in more courses to help students focus and reduce test anxiety.

For CTE programs only:

Program majors/Current concentrators

Unduplicated prior 3 year graduates

4. **Please list any third party accreditation.**

None

5. **List any additional needs for the program (facilities, personnel, technology, student support, etc.).**

We are needing some improvements to the facility, like, a larger opening to the brick shop, more outlets in the new shop, and a bigger classroom. We are also needing more tools for the students and specialty tools for the students to use.

II. Institutional Support

A. Support:

1. **How does this program support other academic areas of the college and/or how is it supported by other academic areas?**

The John Deere Tech program is a 2 year associate of applied science degree. FSCC requires the students in the program to complete 23 hours of general education classes and 2 credit hours industrial arts (welding). Our program ranges between 12 to 20 new students a year. We add between 300 to 500 credit hours per year.

2. **What learning resources are utilized for instruction and supporting the institutional outcomes?**

We use 2 buildings for our program. We are given a budget from FSCC to use for instructional supplies and tools. John Deere also gives us $20,000 to spend for our classes. We are very fortunate that John Deere provides us a budget and gives us all the classroom/lab resources.

B. Community Engagement:

1. **Please provide examples of how the program/discipline fosters relationships within the communities FSCC serves (community partnership, participation, advisory board, etc.)**

We have an annual open house that we invite community members and even government officials to attend. We also have 2 advisory board meetings per year where John Deere Dealership personnel attend. Aggie Days is also held at our facility which gives 1400+ students the chance to engage in our facility. We also host manufacturing day at our facility every year since we have been in Fort Scott.

C. Program Development:

1. **What marketing/recruiting strategies are used by the program/discipline?**

Both instructors attend local career fairs. We also attend career fairs at Kansas State FFA and Missouri State FFA. Dale and I have participated in Dealership career days and are supposed to host a new product training at our facility where 350 people will be in attendance. We will have a 60 minute window 2 times a day to talk about the program while dealerships educate their customers

2. **How, and by what means, does the discipline use external professional and community resources to enhance discipline practices?**

We have had guest speakers come and instruct the students in certain areas of their profession. We will also be attending a tour of Timken in Fort Scott. Timken manufacture a huge variety of belts for John Deere. We have also take students to look at different machines in the community.

3. **Does the discipline have a means for students to assess the program outside of the official student evaluations? If so, explain.**

No

III. Results

A. Continuous Improvement:

1. Please summarize the action plan, including findings from the last Program Review.

Since the last program review, we have implemented a new 1-year certificate, with the option of an AAS. With the implementation of the Certificate program, students are able to complete the John Deere classes in 3 semesters and start working at the John Deere Dealership that sponsored them in the program. Students will have the option to take 5 general education classes before the start the Cert, while enrolled in the Cert, or after they are finished with the certification. All students will take all the same John Deere classes, whether enrolled just in the certification or earning their AAS also.

2. Provide a list of accomplished action items from the previous Program Review.

1. **Improved hands-on testing in A/C class.**
2. **Improved Service Advisor Certification.**
3. **All students are required to pass the ASE 609 Mobile A/C Systems Certification**
4.

3. What items are pending/not completed from the last Program Review? Please provide rationale.

None

4. List any resources needed to complete the pending items.

We need all the extra fees that are charged to the students every semester in the John Deere program. John Deere is planning on cutting the budget even though we are enrolling more students every year. The students are charged an extra $450 per semester for being in our program. **We need this money**.

II. SWOT Analysis

A. Strengths:

- Great support from the John Deere dealership.
- Robust Advisory Board Committee including representation from local John Deere dealers and John Deere corporate.
- Certificate in the John Deere program is approved and this will give our students an opportunity to complete the certification in one year with the option of an AAS.
- Since the program requires a John Deere dealership, our placement rates are 100%.
- We are the first in the country to have the certificate in John Deere to help with addressing the need for John Deere technicians in the area.

B. Weaknesses:

- Passing rate issues with some of the classes. This is being addressed in the action plan.
- With the new certificate, students will not be able to spend time with the dealers before starting the program.

C. Opportunities:

- Students are required to complete two internships with a minimum of 135 hours for each, with their dealer.
- Instructors can recruit students at job fairs, career day at schools, and other opportunities to get information to high school students and recruit them.
- Students can earn multiple certificate levels with John Deere.

D. Threats:

- Low faculty pay makes it difficult to keep and attract well-qualified talented instructors when many can earn more income in the industry itself.
- Other programs may be wanting to replicate our certificate.

Program Action Plan:

Date: 8/6/2024

An Action Plan addressing the findings is developed by the full-time faculty in the program, Vice President of Academic Affairs and Director of Institutional Effectiveness following the Program Review process. Progress and the outcomes of the Action Plan will be reported during next Program Review.

Action items based on Findings/Recommendations	Detailed Action Plan	Anticipated Completion Date	Resources Needed
Students are not semester grades are not meeting 80% or higher.	We are revamping the class to eliminate some of the older fuel systems, to focus on high pressure common rail and unit injector systems. These are the only systems used in today's engines.	5/2025	
The hydraulic certification is not being passes by enough students on the first try.	Dale is changing the class to focus more on what is on the certification rather than a more overall view of ag hydraulics.	6/2025	
Students are not meeting expectations on the diagnostics of hydraulic systems.	Dale will be spending more time on the diagnostic side of hydraulics by adding it to Equipment Diagnostics class.	5/2025	