JOHN DEERE TECH PROGRAM

South Georgia Technical College

Introduction

The John Deere Tech program is an Associate of Applied Science degree (A.A.S.) that is designed to develop technically competent, professional John Deere equipment service technicians. The John Deere Company sponsors the program, and South Georgia Technical College administers and operates the program.

Students receive state-of-the-art technical training on John Deere equipment and related products through a combination of classroom instruction, hands-on laboratory instruction, and supervised internship experience at a John Deere dealership.

Students are required to obtain a sponsor from an authorized John Deere dealership. Students can request assistance in locating a sponsoring dealer, and dealers can request assistance in locating a student to sponsor. Dealers are responsible for providing students with employment and challenging repair projects during the work experience periods. Students are responsible for tuition, fees, textbook and tool costs.

John Deere TECH Admission Information

- Complete an application for Admissions. (An application can be completed online at http://www.southgatech.edu/docs/pdfs/AdmissionApplication2014.pdf or at the Office of Admissions).
- Pay a one-time non-refundable application fee of $25.
- Take entrance exams or submit acceptable SAT/ACT scores.
    - Compass – Writing 62, Reading 79, Algebra 37 or ASSET – Writing 42, Reading 41, Algebra 42 or SAT scores of 450 critical reading and 440 math or ACT scores of 17 Reading, 16 English, and 19 Math.
- Submit dealer sponsorship form.
- Submit copy of high school or GED transcripts. These must be sealed documents.
- Submit copy of Driver's License.
- Apply for Financial Aid
- Applicant is accepted for admission when all requirements are met.
- Attend Orientation and Registration Day

JOHN DEERE TECH PROGRAM

Tuition and Fees

Fall Semester – First Year		Spring Semester-First Year	
Tuition Fee	$1,246	Tuition Fee	$1,335
Fees	$304	Lab Fee	$304
Dorms and Meals	$1,250	Dorms and Meals	$1,250
Dorm Deposit	$150	Dorm Deposit	$150

Summer Semester – First Year		Fall Semester – Second Year	
Tuition Fee	$1,157	Tuition Fee	$1,335
Fees	$304	Lab Fee	$304
Dorms and Meals	$1,250	Dorms and Meals	$1,250
Dorm Deposit	$150	Dorm Deposit	$150

Spring Semester – Second Year	
Tuition Fee	$1,335
Lab Fee ($30/lab)	$305
Dorm & Meals	$1,250
Dorm Deposit	$150

TOTAL COST: In-State: $14,928

Fees and tuition are subject to change. All student enrolled in the John Deere Program will receive in-state tuition

John Deere TECH Curriculum

First Year:

First Semester (Fall)	Credit Hours
Service Technician Fundamentals	3
Basic Electrical/Electronics	2
Composition and Rhetoric	3
Dealer Internship	6
Total Semester Hours	14

Second Semester (Spring)	Credit Hours
Basic Powertrains	2
Basic Hydraulics	2
College Algebra	3
Dealer Internship	6
Welding Basics	2
Total Semester Hours	15

Summer Session

Basic Diesel Engines	3
Air Conditioning Systems	2
AMS Equip.	2
American Literature	3
Introduction to Computers	3
Total Semester Hours	13

Second Year

First Semester (Fall)	Credit Hours
Dealer Internship	6
Advanced Electrical/Electronics	2
Advanced Power trains & Diagnostics	2
Introductory Psychology	3
Technical Communications	3
Total Semester Hours	16

Second Semester (Spring)	Credit Hours
Dealer Internship	6
Advanced Hydraulics & Diagnostics	2
Planting & Seeding Equipment	3
Harvesting	3
Advanced Engines & Diagnostics	2
Total Semester Hours	16

TOTAL DEGREE HOURS 74

John Deere TECH Course Descriptions

AGRI 1110 - Service Technician Fundamentals (3 credits)

Pre-requisites: None
Co-requisites: None
Provides instruction on the proper use and care of power and hand tools. Encompasses micrometers, dial indicators, torque wrenches, twist drills, taps, dies, screw extractors, thread restoration, tube flaring, fittings, and fasteners. Safety and proper operation of pullers and presses will be demonstrated and practiced. Also included will be setup of equipment using specifications provided by the manufacturer so that it is field ready. Proper use of shop tools and shop equipment is emphasized including proper torquing of attaching hardware. Further study of the John Deere Service ADVISOR program will be covered and students will learn how to navigate and use all of the functions of program and to incorporate it while diagnosing problems.

AGRI 1120 - Basic Diesel Engines (3 credits)

Pre-requisites: None
Co-requisites: None
Course deals with basic physical principles, operation, and construction of two- and four-stroke cycle engines. It includes ignition timing of four -stroke cycle engines to factory specifications. Basic diagnostic engine test procedures will be practiced on spark and compression ignition engines.

AGRI 1130 - Basic Power Trains (2 credits)

Pre-requisites: None
Co-requisites: None
Provides instruction on the theory of power transmissions from engine to traction wheels. Includes function and operation of gears, chains, clutches, planetary gears, drivelines, differentials, and transmissions. Complete disassembly, inspection, and reassembly of clutches, 2-speed planetaries, differentials, final drives, mechanical front-wheel drive, power take-offs, and transmissions. Proper set-up and adjustment of differentials and final drives using bearing pre-loads, shimming, rolling drag, etc. will be covered as well.

AGRI 1140 - Basic Hydraulics (2 credits)
Pre-requisites: None
Co-requisites: None
Hydraulic theory emphasizing pressure and flow relationship, comparison between open-center and closed-center hydraulics systems, and discussion and tear-down of hydraulic components such as variable and fixed displacement pumps, motors, control valves, relief valves, flow control valves, cylinders, filters, reservoirs, lines, and fittings. Simple pressure and flow test and the study of JIC schematics will prepare the student for advanced hydraulics.

AGRI 1150 - Basic Electrical/Electronics (2 credits)
Pre-requisites: None
Co-requisites: None
Basic electrical principles and applications of magnetism, electromagnetism, and electromagnetic induction, voltage, current, and resistance using ohms law will be discussed. Basic operation and diagnostics of charging systems, starting circuits, series and parallel circuits, and batteries will be covered as well. The theory of operation of electrical and electronic components will be discussed as well as basic computer and controller circuits as they relate to John Deere equipment.

AGRI 1160 - Air Conditioning Systems (2 credits)
Pre-requisites: None
Co-requisites: None
The theory of operation, component function, and diagnosis of both manual and automatic temperature control systems will be studied. The students will use refrigerant recovery machines for R-134a refrigerant and will learn the proper procedures and guidelines for retrofitting systems from R-12 to R-134a. Heavy emphasis will be put diagnosing air conditioning problems with the proper tools and equipment.

AGRI 1170 - AMS Equipment Set-Up (2 credits)
Pre-requisites: AGRI 1130, AGRI 1140, AGRI 1150
Co-requisites: None
This course covers the theory, design, principles of operation and adjustment, trouble shooting and repair of harvesting equipment including combines, cotton pickers, and hay equipment. Heavy emphasis will be put on crop flow through the machine and initial field preparation adjustments. Students must have a basic understanding of power trains, electrical systems, and hydraulics for successful completion. The installation and set-up of AMS equipment will also be covered.

AGRI XXXX – Planting & Seeding Equipment (3 credits)
Pre-requisites: AGRI 1130, AGRI 1140, AGRI 1150
Co-requisites: None
This course covers the theory, design, principles of operation and adjustment, trouble shooting and repair of harvesting equipment including combines, cotton pickers, and hay equipment. Heavy emphasis will be put on crop flow through the machine and initial field preparation adjustments. Students must have a basic understanding of power trains, electrical systems, and hydraulics for successful completion. The installation and set-up of AMS equipment will also be covered.

AGRI 2110 - Advanced Engines & Diagnostics (2 credits)
Pre-requisites: AGRI 1120, AGRI 1150
Co-requisites: None
Course deals with more machine specific hydraulic systems on current production machines. The theory of operation of complete hydraulic systems will be studied as well as in depth diagnostic procedures and methods according to the appropriate technical manuals. Students will enroll and take the online John Deere hydraulic systems overview courses and complete the online final assessment.

AGRI 2120 - Advanced Hydraulics & Diagnostics (2 credits)
Pre-requisites: None
Co-requisites: None
Course deals with the theory of operation and diagnostics and repair of all John Deere fuel systems, electronic engine controls, and current emissions regulations and components. Heavy emphasis will be put on engine diagnostics using John Deere software as well as on board machine diagnostics. Proper repair and replacement procedures for fuel system components using proper tools and equipment will also be covered.

AGRI 2130 - Advanced Electrical/Electronics (2 credits)
Pre-requisites: AGRI 1110, AGRI 1150
Co-requisites: None
Course deals with more advanced electrical/electronic systems consisting of multiple electronic controller circuits and control functions. In depth study of these systems and how they interact and function with other electronic controllers and the machine will be covered. Students will also enroll and take the online John Deere electrical systems courses and complete the online final assessment. Heavy emphasis will be placed on diagnostic methods and procedures.

AGRI 2140 - Advanced Power Trains and Diagnostics (2 credits)
Pre-requisites: AGRI 1110, AGRI 1130, AGRI 1150
Co-requisites: None
This course provides an in-depth study of power trains with diagnosis and repair of problems encountered in everyday use. Students will use manuals and specifications in determining time, parts, and total cost in the repair of projects. Specialty tools will be introduced and their use, care, and importance stressed.

AGRI 2210 - Dealer Internship I (12 credits)
Pre-requisites: None
Co-requisites: None
During the dealer internship/co-operative work experience, the student gains the practical knowledge necessary for optimum job performance. The student will be required to function in the sponsoring dealerships work environment under the supervision of the dealership management personnel or co-op training coordinator.

AGRI 2220 - Dealer Internship II (12 credits)
Pre-requisites: None
Co-requisites: None
During the dealer internship/co-operative work experience, the student gains the practical knowledge necessary for optimum job performance. The student will be required to function in the sponsoring dealerships work environment under the supervision of the dealership management personnel or co-op training coordinator.

AGRI XXXX – Harvesting (3 credits)
Pre-requisites: TBD
Co-requisites: TBD

WELD – Welding Basics (2 credits)
Pre-requisites: TBD
Co-requisites: TBD

JOHN DEERE TECH BOOKS:

Required Books for Fall Semester:

1. Electronic & Electrical Systems
   Order#: FOS2009NC
2. Engines
   Order#: FOS3010NC
3. Shop Tools
   Order#: FOS5107NC

Required Books for Spring Semester:

1. Powertrains
   Order#: FOS4008NC
2. Hydraulics
   Order#: FOS1008NC
3. Air Conditioning
   Order#: FOS5710NC
4. Combine Harvesting
   Order#: FMO15106NC
5. Precision Farming Guide for Agriculturists
   Order#: FP403NC

Book Ordering Process

There are three ways to purchase your books.

1. Contact John Deere Publications and Order by Phone – 1.800.522.7448. You will need to give them the Order #s listed for each book.
2. Order through the Parts Department at the Dealership. The Parts Manager can order them through JDPoint. You will need to provide the Parts Manager the Order # listed for each book.
3. Order online through the John Deere Publications website http://www.deere.com/wps/dcom/en_US/services_and_support/product_support/publications/publishing.page

JOHN DEERE TECH PARTICIPANT RESPONSIBLITIES:

South Georgia Technical College

1. Maintain a current curriculum approved by John Deere.
2. Provide classroom and laboratory facilities.
3. Provide teacher-coordinator and instructors; the teacher-coordinator acts as a liaison between SGTC and John Deere representatives.
4. Provide equipment and tools.
5. Promote, advertise and recruit qualified students.
6. Test, interview and screen students.
7. Assist dealers with student selection.
8. Maintain all student records.
9. Provide academic, financial aid, and counseling services and advisement.
10. Visit students during internship experiences to assure attainment of work experience competencies.
11. Furnish program information to dealers, students and the general public when requested.
12. Provide an Associate of Applied Science Degree in Agricultural Technology.

John Deere Company

1. Encourage dealer cooperation and support.
2. Provide training for the teacher-coordinator and instructors on John Deere Ag and Turf equipment
3. Furnish SGTC with John Deere materials for training (service manuals, including computer service reference, technical publications, etc.).
4. Furnish SGTC with John Deere equipment for training (equipment components, essential tools and complete equipment machinery).
5. Participate in the coordinator-teacher and instructor selection process.
6. Monitor the John Deere program at SGTC to assure success.

John Deere Dealership

1. Interview and select a student to sponsor.
2. Promote, advertise and recruit qualified students
3. Appoint an in-dealership coordinator or supervisor to work with SGTC's teacher-coordinator in planning and monitoring the supervised occupational work experiences.
4. Pay trainee's wages, commensurate with experience, during periods of internship experiences.
5. Provide the sponsored student with uniforms in a manner consistent with other dealership employees.
6. Students will wear uniforms (shirt and pants) at both school and work.
7. Provide work experience that will increase the students skill level.

8. Provide student ID and password to use with JD Pathways and Service ADVISOR™.

Student

1. Demonstrate high school graduate or equivalent.
2. Apply for admission to SGTC.
3. Obtain and maintain a John Deere dealership sponsor.
4. Complete entrance tests.
5. Maintain SGTC and John Deere academic standards and adhere to academic policies.
6. Wear John Deere uniforms and safety glasses while on campus and during internship experiences at the sponsoring dealership.
7. Participate in all learning activities and experiences at the scheduled times.
8. Provide the sponsoring dealership with responsible and productive employment.
9. Pay for program costs - tuition, fees, books and tools.

Agricultural Technology Academic Program Student and Sponsoring Dealer Agreement

GENERAL DESCRIPTION

The South Georgia Technical College Agricultural Technology "John Deere Tech program" is a two-year Associate in Applied Science Degree. It is sponsored by South Georgia Technical College, John Deere Company, and participating regional John Deere dealers. Upon successful completion of the two-year program, the student will receive an Associate of Applied Science Degree in Agricultural Technology.

STUDENT AND SPONSOR COMMITMENTS

The sponsoring dealers have made several commitments to aid the student in successfully completing the program. The student as well must agree to the certain commitments to the sponsoring dealer. The following outlines each party's commitments to the program.

STUDENT COMMITMENT

- The student is required to arrange his or her own financial aid for tuition, books, and other fees while attending the program. The student is responsible for all parking fees and fines.
- The student is required to arrange and pay for all room and board while attending the program.
- The student must maintain a minimum 2.6 GPA.
- The student is required to maintain a professional appearance and wear the proper uniform while attending classes, school functions and summer co-op.
- Safety equipment must be worn as required by shop conditions.

SPONSORING DEALER COMMITMENT

- The sponsoring dealer will provide uniforms while attending the program.
- The sponsoring dealer will provide a safe and educational co-op experience.
- The sponsoring dealer agrees to pay the student during the co-op experience.
- Although full time employment for all graduates is the sponsoring dealer's intent, the guarantee of full time employment after graduation is not expressed or implied.
- Individual sponsorship agreements vary among dealerships. It is the student's responsibility to discuss sponsorship details with the sponsoring dealership.

I have read and understand the Student and Sponsor Commitments described above.

Student _____

Dealer Representative _____

Agricultural Technology Program
(John Deere Tech)
Student Release of Information Form

Student Name: _____

Student ID: _____

I hereby grant permission to South Georgia Technical College to release my student information to the John Deere dealer listed below and to John Deere Company. This information includes my attendance, academic progress, work habits and placement test results while in the John Deere Tech program.

Name of Employer/Sponsor_____

Addres_____

City, State, Zip_____

Phone Number_____

Student Name (Printed)_____

Student Signature _____

Student Address _____

City, State, Zip _____

Date_____

Return the completed form to Matt Burks at South Georgia Technical College.

Email: mburks@southgatech.edu

Fax: Matt Burks (229) 931-2400

Dealer Approval of Student

Directions for the Student

Fill in the information below and take this Dealer Approval Form to the sponsoring John Deere dealer for approval of the sponsorship.

Student's Name_____

Address_____

City, State, Zip_____

Telephone_____

Statement of Approval by the Dealer

I agree to provide sponsorship for the above student in the John Deere Tech Program at South Georgia Technical College.

Dealership_____

Address_____

City, State, Zip_____

Telephone_____

Authorizing Representative (Signature) _____

Date_____

Contact Information:

1. Matthew Burks – Instructor
   (229)-931-2401
   mburks@southgatech.edu

2. Wayne Peck
   (229) 931-2005
   wpeck@southgatech.edu

3. David Finley – Academic Dean
   (229) 931-2068
   dfinley@southgatech.edu