

Industrial Technology Department

Jordan College of Agricultural Science and Technology

New to the Department

Our new Department administrative assistant, Debbie Pichardo who replaced newly retired Christina Fitz-Gibbon, serves as a vital link between our students and faculty. Debbie Pichardo comes to the department with twelve years of campus experience. She served in various positions including Graduate Admissions office, undergraduate admissions and most recently in the Department of Physical Therapy for 6 years.

Building Pathways for Student Success

On December 7, 2018 the first meeting between the region's community colleges and Jordan College administrators and faculty took place at Fresno State. Participants in the Building Pathways for Student Success meeting included faculty from most departments of Jordan College, and the following community colleges:

College of Sequoias
Modesto Junior College
West Hills College
Merced College
Reedley College
Bakersfield College
(Applied Technology Division, - Fresno City College)
Delta College, Stockton

This all day initiative targeted expanding the already existing relationships between our programs and the community colleges with ag programs and would allow our faculty to meet and develop synergies. This event attracted over 65 people that included faculty surrounding community colleges with areas of interested in Animal Science, Plant

Science, Ag Business, Viticulture and Enology, Ag Education, and Industrial Technology.

The department of Industrial Technology met with instructors from Bakersfield College, Fresno City College, College of the Sequoias, West Hills College and Reedley College to engage in conversations and look for ways to improve the transfer student experience and other initiatives. The next meeting will take place in May 2019.

ATMAE Accreditation

Our accreditation by the Association of Technology Management and Applied Engineering (ATMAE) is



official and good until 2024! In our initial review in Spring of 2016, we were given a provisional two year accreditation mostly due to the status of our equipment and labs. In other words, we were given two years to update our labs and be reviewed again. Thanks to the donation of the sorting line and other improvements in our facilities during 2017, the two year visit went well. We earned the best rating possible, a six year accreditation. It was made official this November at the ATMAE annual conference in Kansas City, MO. We can use the accreditation logo for the next six years. Congratulations to the accreditation team and particularly Don Austin who lead the effort.

Associate Dean Katie Reid-Bevington Retires

Dr. Katie Reid-Bevington, Associate Dean for the Jordan College of Agriculture retired in August, 2018 after 20 years of service to California State University, Fresno. A retirement celebration was held in late August at the Smittcamp Alumni House where family, friends, and co workers came to wish her well as she begins the next chapter of her life.

Dr. Michael Thomas appointed Interim Associate Dean for Jordan College

Dr. Michael Thomas has been appointed to Interim Associate Dean for the Jordan College. Dr. Thomas, a faculty member in the Department of Animal Sciences and Agricultural Education, spent much of his time working with the California Agricultural Leadership Foundation (CALF). He was first appointed to represent Fresno State as a core faculty member for CALF in 2003. Dr. Thomas brings a wealth of experience in leadership development, an asset for the Jordan College.



Special points of interest:

- Building Pathways for Student Success
- Accreditation
- Student research and awards
- 2019 Convocation
- Also check out the department website: www.fresnostate.edu/jcast/indtech/

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IT Students trip to Ghana

IT students participated in a study abroad service learning trip to Ghana. The trip was organized by the Department of Agricultural Business. During the trip they were exposed to the Ghanaian culture and interacted with local farmers. They visited rural communities and mingled with their culturally diverse inhabitants, experienced local farming practices of various crops including cacao. They exchanged ideas with local farmers and discussed their future plans. The most valuable experience was the kind of interactions with the people of two villages that they visited: Suhum and Shia. In the two-and-a-half weeks that they resided in Suhum and Shia, they were greatly appreciative of their hospitality.



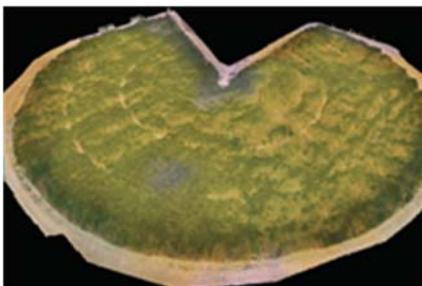
Ag Fest, Mens Basketball

At the Ag Fest Men's Basketball game on January 12, 2019, Geoff Thurner along with IT students Noe Toribio, James Chang, and John Abundis coordinated a table, answering questions about our programs, drone equipment, smart farm technology, etc. Lets thank them all for their contributions at this event.



Drone Research

Over this past summer of 2018, graduate student William Pearson along with Dr. James Yager used drones to map certain crop fields in the University Agricultural Laboratory. The drones used in these experiments was a DJI Phantom 3 Advanced and a DJI Phantom 4. Both drones created remarkable maps that provide very useful data. The findings illustrated how elevation and gravity can affect nutrients and water being allowed to different areas in the soil. In general mapping with drones enables farmers to look at variations in their fields, sample the inflicted areas and understand the implications of the variations.



Visiting Scholar

The Department is hosting one visiting scholar, Dr. Yue Jiang Shi, who is collaborating for his research with Dr. Daming Zhang. He is from the Central South University of Forestry and Technology in China and is working with Dr. Zhang on a project on the flow and combustion of rotary biomass pellet burner.

32nd Annual Industrial Technology Spring Banquet & Career Fair

2019 IT spring banquet is scheduled for Tuesday, April 9, 2019 and will be open for all students, faculty and industry representatives to attend. It will be held in the Residence Dining Hall with an expectation of over 100 attendee's. This year we will have two guest speakers. Keep an eye out for flyer and sign up form.



Important Dates Spring 2019

Tues, April. 9 Spring Banquet
 Mon. April 1 Cesar Chavez Holiday
 April. 15-19 Spring Break
 Wed. May. 8 - Last Day of Instruction
 M-Th. May 13-16– Finals Week
 Sat, May. 18 – Commencement

From the Chair

Dear students, alumni and friends of the Department of Industrial Technology,

During the last semester the Department has been refocusing its efforts to recruiting students from local community colleges and also high schools. Faculty is visiting local schools and also have students touring its facilities.

Its Advisory Board has introduced a scholarship to assist deserving students. Additionally, the Department continues its fundraising efforts in coordination with the Dean's office and Ag One.

These efforts are important and would not have been possible without the hard work and dedication of the faculty, staff, and the IT advisory board, and of course, the support of the College's leadership. Thank you all.

New Summer Camp Program

The Department of Industrial Technology is developing plans to implement a Summer Camp program for regional high school students. The Summer Camp will be tentatively launched this summer, in June, 2019. The purpose of the Summer Camp will be to introduce high school students to the field of Industrial Technology, and provide them an experience to aid them in making an informed decision about choosing Industrial Technology as a post-high school educational pursuit, and ultimately their career. Several other schools and college within the university have similar events, or multiple-day programs for high school students, most notably the School of Engineering, with whom the Industrial Technology program is collaborating with in coordinating this endeavor. Dr. Arun Nambiar, Industrial Technology, suggested some time ago the concept that the I.T. Department also provide such an opportunity.

The event is anticipated to initially be a three-day event. Categories of activities will be a combination of Introductory Presentations, Team-Building Exercises, Keynote Speakers from industry, tour of the facilities and laboratories, and several instructional learning modules with hands-on experiential activities. Some of the faculty-instructed modules are planned to include Foundations of Technology, Manufacturing Principles: Artificial Intelligence: Machining, Gas and Arc Welding, Woodworking, and Materials, Automotive Technology, Technical Writing, and Automated Fruit Packing Line Principles and Operation. A special feature of the Packing Line, as prospectively being planned to obtain and install by June, will be an articulated robotic arm that will stack and palletize packaged boxes of citrus fruit. The Department hopes to invite some current I.T. Students to participate in demonstrating key technologies on the tour for the high school students during their time with us.

This Summer Camp will allow young students to gain first-hand knowledge of Industrial Technology in an immersive, focused experience for three full days. They will benefit from the event as they gain a better understanding of the education required, and the opportunities the field offers. Other aspects provided to them will be valuable information about Fresno State as their potential choice for continuing their education and earning a Bachelor's Degree. A planned cohort size for the initial offering of this program will be approximately 35 students. The Industrial Technology Department Chair, Alex Alexandrou; Faculty, and Staff look forward to putting this Summer Camp Program into action in 2019, and developing it for additional growth in 2020 and beyond.

Teachers Ed Program

Even though our department started as a teacher education program to prepare shop teachers for public schools, not many students exiting our bachelor's program today want to enter the teaching profession. The traditional route is to earn a Bachelor's degree in Industrial Technology, then spend a fifth year in the school of education, taking classes in educational theory and student teaching, to earn a teaching credential in Industrial Technology. But very few of our graduates are doing it. While most collegiate programs similar to ours shut down their teacher ed programs, we didn't. Ours is one of the last remaining in the state and has taken on new life.

After decades of ignoring hands-on technology education and closing shops, the buzz word of the moment in public schools is STEM, which stands for Science, Technology, Engineering and Mathematics. Many of these STEM classes are basically reinvented and updated Industrial Arts classes, which means they are general technology education. Think high end drafting or electronics classes which go side by side with the Science and Math classes. Many school districts have purchased curriculum, such as Project Lead The Way, designed to provide pre-engineering classes to middle and high school students. Several industrial corporations, such as Auto Desk (AutoCad) and Delta (machinery), are sponsors of these programs and provide boot camp like summer training classes for teachers to learn the software and hardware of technology.

The school districts find themselves between a rock and a hard place. They want to offer the Technology and (pre) Engineering classes, but they don't have people with proper credential. The proper credential to teach these classes is the Industrial Technology single subject credential, which is the one that no one is getting in the traditional fifth year route.

To solve the teacher shortage in all subjects, the California Commission on Teacher Credentialing has set up a two part path for a teacher who already holds a credential in any subject matter to earn an additional credential. The first part is to prove competency in the desired subject matter. The candidate takes a special, day long test, called the California Subject Examination for Teachers (CSET) in that new subject matter. There is a CSET test for Industrial Technology. Those working teachers don't have to repeat another fifth year program. (They are already teaching, why should they have to redo student teaching?) The second part of the path is to take a course in methods of teaching the new subject. That is where our department comes in.

We have had such a methodology course on our books since the department was founded. In the early 2000's, before STEM became a thing in public education, we set that course as an on-line course. Since we only had at most two students a year going through the teacher ed program, the idea was that we could still work with the local students face-to-face without a constraint of regularly scheduled meeting times.

About five years ago, we started getting calls from teachers around the state asking if they could take the course. Since then, I have taught that course each semester (and some intersessions) providing a chance for over 200 teachers to earn a second credential and properly teach technology classes. After dismantling shops during the no-child-left-behind era, they are rebuilding them as Maker's spaces, with band saws, 3D printers and small CNC machines. The pendulum has swung in our favor.