

Contact: Diana Gonzalez

**UNDERGRADUATE TECHNOLOGY PROGRAMS  
ACCREDITATION REPORT AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report for the undergraduate Technology Programs in the Department of Agricultural and Biosystems Engineering at Iowa State University. These programs are jointly administered by the Colleges of Agriculture and Life Sciences and Engineering.

**Executive Summary:** The Bachelor of Science Program in Industry Technology (with two options) applied for re-accreditation and the Bachelor of Science Program in Agricultural Systems Technology (with two options) applied for initial accreditation. All programs (1) underwent a self-study that addressed the standards defined by the accrediting body; and (2) had an on-site visit by peer evaluators. The programs were accredited without an interim report for the full six-year period through November 2014. This accreditation report addresses the Board of Regents Strategic Plan objective (1.1) to “offer high-quality programs through ongoing program improvement for undergraduate, graduate, professional, and non-degree students and special school students.”

**Background:**

- ◇ **Industrial Technology.** This field of study is designed to prepare technical and management oriented professionals for careers that integrate and apply industrial technology to lead and manage human, manufacturing, and safety systems. This program offers two options – Manufacturing which prepares graduates to plan and coordinate materials, machines, methods, and human resources in a manufacturing environment; and Occupational Safety which prepares graduates to develop, coordinate, and evaluate safety issues relating to people, materials, equipment, methods, and environments.
- ◇ **Agricultural Systems Technology.** This field of study is designed to prepare professionals for careers that integrate and apply agricultural and biosystems engineering technology to manage human and natural resource systems for producing, processing, and marketing food and other biological products worldwide. This program offers two options – Machine Systems which prepares graduates to manage and test machine systems in the context of complete agricultural, biological production or processing systems; and Agricultural and Biosystems Management which prepares graduates to develop and implement best management practices for human and natural resource systems for producing, processing, and marketing bio-based products worldwide.
- ◇ **Purpose of Accreditation.** An accredited educational program is recognized by its peers as having met national standards for its development and evaluation.
- ◇ **Accrediting Agency.** The accrediting body is the Association of Technology, Management, and Applied Engineering, formerly called the National Association of Industrial Technology.
- ◇ **Review Process.** The self-studies prepared by the Technology Undergraduate Programs contained the responses to the appropriate standards required by the accrediting body – philosophy and objectives; program of study; instruction; faculty; students; administration; facilities and equipment; computer systems; financial resources; library and information resources; support personnel; placement services; industrial advisory committee(s); educational innovation; and assessment.

- ◇ On-Site Team Report. In April 2008, the visiting team determined that the undergraduate Technology Programs met the requirements for accredited status, although there were two standards that were in partial compliance for both programs and options. In addition, there were two standards that were in partial compliance for the Industrial Technology Program and two options and not in compliance for the Agricultural Systems Technology Program and two options.
  
- ◇ Sample Strengths Identified by the Visiting Team.
  - ☑ “A well-elaborated system of competencies and their evaluation has been established throughout program and option coursework including the use of online automated competency-based tools, internship evaluation, student portfolios, senior capstone project and internship evaluations, senior exit interviews, and external reviews.”
  - ☑ “Evidence of appropriate administrative support from the institution for the programs and options was apparent. Faculty were well-qualified, both academically and industrially. Further evidence was indicated by the fact that 16 vacated faculty positions were funded and filled with well-qualified faculty since 2002.”
  - ☑ “Good technical support is present for facilities and computer equipment in the department and integrated with the entire university.”
  - ☑ “Interviews with students in each option revealed a high level of student motivation and involvement in their academic careers.”
  - ☑ “The self-study report shows the continuous curricular improvement process used by the programs. This is a well-developed process and the faculty are to be commended for their efforts. Six improvements were documented as being made as a result of the feedback received on the outcomes of these programs.”
  
- ◇ Standards in Partial Compliance.
  - ☑ Program goals. “Short and long-term goals are established but are not specific for each option. Specific plans to achieve the goals are more general (departmental) in nature and not uniformly listed by option.”
  - ☑ Advisory Council approval of overall program. “The department currently has one advisory council. This does not meet the NAIT standard. Recommendation is to develop a council for each of the options perhaps as a focused sub-committee and where the members are selected specifically to that end.”
  
- ◇ Standards in Non-Compliance or Partial Compliance.
  - ☑ Job advancement of graduates. “An appropriate procedure for tracking the advancement of graduates within organizations does not appear to be in place. The regularity of the data for the job advancement of the Industrial Technology graduates needs to be demonstrated by another survey. The team recommends a survey be done every three years. No summary data was presented for the job advancement of the graduates of the two options of the Agricultural Systems Technology Program.”
  - ☑ Employer satisfaction with job performance. “Data was collected for Industry Technology in 2004 only; no data was presented for the Agricultural Technology options. Regularity can be established by completion of a second survey. Recommendation is to begin completing surveys on a three-year cycle for all options.”

- ◆ Accreditation Status. In December 2008, the National Association of Industrial Technology awarded accreditation to the undergraduate Technology Programs with options at ISU for a six-year period through November 2014.