

**EDUCATION AND STUDENT AFFAIRS COMMITTEE  
BOARD OF REGENTS, STATE OF IOWA**

**ALUMNI CENTER HORTON MULTI-PURPOSE CONFERENCE ROOM  
IOWA STATE UNIVERSITY  
AMES, IOWA**

**FEBRUARY 26, 2014  
2:30 - 4:30 PM**

1. Call the Meeting to Order (President Pro Tem Mulholland)

Education and Student Affairs Committee

- |   |            |
|---|------------|
| 1. Architecture Programs Accreditation Report (Wickert/Gutierrez)                 | Discussion |
| 2. Engineering Programs Accreditation Report (Wickert/Rajala)                     | Discussion |
| 3. Design Programs Accreditation Report (Wickert/Gutierrez/White/Schmittmann)     | Discussion |
| 4. Dietetic Internship Program Accreditation Report (Wickert/White/Wintersteen)   | Discussion |
| 5. Didactic Program in Dietetics Accreditation Report (Wickert/White/Wintersteen) | Discussion |
| 6. Other Business (Regent Mulholland)   | Discussion |

## Board Meeting Schedule

### 2014

March 12, 2014	University of Iowa	Iowa City
April 23-24, 2014	Iowa School for the Deaf	Council Bluffs
June 4, 2014 (Evaluations)	Iowa State University	Ames
June 5, 2014	Iowa State University	Ames
August 6, 2014	Telephonic	
September 10, 2014	Iowa State University	Ames
October 22-23, 2014	University of Iowa	Iowa City
December 3, 2014	Telephonic	

### 2015

February 4-5, 2015	University of Northern Iowa	Cedar Falls
March 11, 2015	University of Iowa	Iowa City
April 22-23, 2015	Iowa School for the Deaf	Council Bluffs
June 3, 2015 (Evaluations)	Iowa State University	Ames
June 4, 2015	Iowa State University	Ames
August 5, 2015	Telephonic	
September 9, 2015	University of Northern Iowa	Cedar Falls
October 21-22, 2015	University of Iowa	Iowa City
December 2, 2015	Telephonic	

**BOARD OF REGENTS  
STATE OF IOWA**

**EDUCATION AND STUDENT AFFAIRS COMMITTEE  
FEBRUARY 26, 2014**

**Contact: Diana Gonzalez**

**CALL TO ORDER**

President Pro Tem Mulholland will call to order the February 26, 2014, Education and Student Affairs Committee meeting.

**BOARD OF REGENTS  
STATE OF IOWA**

**EDUCATION AND STUDENT AFFAIRS COMMITTEE  
FEBRUARY 26, 2014**

**Contact: Diana Gonzalez**

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**EDUCATION AND STUDENT AFFAIRS COMMITTEE  
BOARD OF REGENTS, STATE OF IOWA**

**ALUMNI CENTER HORTON MULTI-PURPOSE CONFERENCE ROOM  
IOWA STATE UNIVERSITY  
AMES, IOWA**

**FEBRUARY 26, 2014  
2:30 - 4:30 PM**

- |    |  |            |
|----|--|------------|
| 1. | Architecture Programs Accreditation Report (Wickert/Gutierrez)                 | Discussion |
| 2. | Engineering Programs Accreditation Report (Wickert/Rajala)                     | Discussion |
| 3. | Design Programs Accreditation Report (Wickert/Gutierrez/White/Schmittmann)     | Discussion |
| 4. | Dietetic Internship Program Accreditation Report (Wickert/White/Wintersteen)   | Discussion |
| 5. | Didactic Program in Dietetics Accreditation Report (Wickert/White/Wintersteen) | Discussion |
| 6. | Other Business (Regent Mulholland)   | Discussion |

Contact: Diana Gonzalez

**ARCHITECTURE PROGRAMS**  
**ACCREDITATION REPORT AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report for the Bachelor of Architecture and the Master of Architecture programs in the College of Design at Iowa State University.

**Executive Summary:** The programs (1) underwent a self-study that addressed the conditions of accreditation defined by the accrediting body; and (2) had an on-site visit by peer evaluators. The programs were accredited for the maximum eight-year period through 2021. However, four of the 55 conditions were not met. Continuing accreditation is subject to two reporting requirements: (1) submit annual statistical reports; and (2) submit an Interim Progress Report two years and five years after the on-site visit. This accreditation report addresses the Board of Regents Strategic Plan priorities for “access, affordability, and student success; educational excellence and impact; and economic development and vitality.”

**Background:**

- ◇ **Description of undergraduate program.** The Bachelor of Architecture (B.Arch.) program consists of one year in the College of Design’s pre-professional Core Design Program, followed by four years in the professional B.Arch. program. The B.Arch. program provides the foundation for becoming a licensed, registered architect within five years. “The practice of architecture includes any professional service, such as consultation, investigation, evaluation, planning, and design, or responsible observation of construction of buildings, or related structures and projects, or the addition to or alteration thereof, wherein the safeguarding of life, health, or property is concerned or involved.”<sup>1</sup>
- ◇ **Description of graduate program.** The Master of Architecture (M.Arch.) program emphasizes architecture as an integrated knowledge of design/media, intellectual rigor, science/technology, and professional responsibility.
- ◇ **Purpose of Accreditation.** An accredited educational program is recognized by its peers as having met state and national standards for its development and evaluation. To employers, graduate schools, and licensure, certification, and registration boards, graduation from an accredited program signifies adequate preparation for entry into the profession. In fact, many of these groups require graduation from an accredited program as a minimum qualification. Accreditation is also intended to protect the interests of students, benefit the public, and improve the quality of teaching, learning, research, and professional practice.
- ◇ **Accrediting Agency.** The accrediting body is the National Architectural Accrediting Board (NAAB).

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<sup>1</sup> Iowa State Board of Architectural Examiners definition of architecture.

- ◇ Review Process. The self-studies prepared by the Architecture programs contained the responses to the appropriate conditions required by the accrediting body – institutional support and commitment to continuous improvement; identity and self-assessment; resources; institutional and program characteristics; policy review; student performance; curricular framework; evaluation of preparatory/pre-professional education; and public information.
- ◇ On-Site Team Report. In March 2013, the visiting team determined that the Architecture programs met the requirements for accredited status, although four conditions were not met.
- ◇ Sample Strengths Identified by the Visiting Team.
  - ☑ “There are various aspects, and unique qualities, which have contributed to the development of a balanced and comprehensive center for architectural education based on a mission statement that emphasizes “study of architecture as a cultural discipline in which issues of practice of the multiplicity of social formation...are enfolded with the subject matter of building design – construction, space, material, form, and use.
  - ☑ The institution is committed to preparing students for practice as visionary problem-solvers and developed thinkers, as well as informed decision-makers for the betterment of society.
  - ☑ The framework of the program within the context of the university has demonstrated design innovation and interdisciplinary initiatives in architecture education. Students are trained and nurtured to become future practitioners and designers with a broad vision, while being equipped with requisite knowledge and skills to practice in a diverse globalized world.
  - ☑ The College of Design is enjoying the presence of a supportive visionary dean who has provided a novel momentum of restructuring and reinstating various design disciplines and providing opportunities for development of new programs.
  - ☑ A highly motivated faculty dedicated to the cause of architecture education has created a rigorous, challenging, and dynamic interdisciplinary climate for teaching and learning.”
- ◇ Conditions not met in Educational Outcomes and Curriculum.
  - ☑ Historical Traditions and Global Culture – Understanding parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national setting from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. “For the B.Arch., the team determined that this requirement was not met to the necessary degree within the required history/theory sequence, Arch 221 History of Architecture I, and Arch 222 History of Architecture II. The program also strives to meet this requirement through the required electives component, Studies in Architecture and Culture (SACs). However, the team found that some of the electives, particularly Arch 597, did not sufficiently cover non-Western architecture history, therefore, not guaranteeing every student equal exposure to non-Western tradition. The course

syllabus also did not identify itself as fulfilling this SAC required elective, even though students were advised that it would meet this requirement.”

- ☑ Accessibility – Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical, sensory, and cognitive disabilities. “Although there is ample evidence that Accessibility is thoroughly covered in the elective course Arch 571 “Design for All People,” the team could not find evidence of ability demonstrated in work of design studios or other required courses, in the B.Arch. and M.Arch. Programs.”
- ☑ Life Safety – Ability to apply the basic principles of life-safety systems with an emphasis on egress. “No evidence of this student performance criterion was found in the course work. Although the Arch 245 Building Science and Technology Module 2 – Assemblies and Materials – syllabus indicates it will be addressed, there was no further documentation of this. The second round of projects in the later submission addressed certain life safety applications; however, there were a considerable number of errors and code oversights, particularly in high pass projects. Similarly, the integration of life safety requirements in studio designs was not evident, with particular neglect of egress considerations.”
- ☑ Comprehensive Design – Ability to produce a comprehensive architectural project that demonstrates each student’s capacity to make design decisions across scales while integrating all of the student performance criteria. “The B.Arch. and M.Arch. Programs have two comprehensive design studios (Arch 401 and 403; Arch 601 and 603). Although both documented multiple source research, the analysis of facts, the development of a rhetorical argument, bibliographic information, and the proper citation of sources in papers, there was no evidence found in the work shown that any students had developed the ability to integrate Accessibility and Life Safety into their project solutions.”

◇ Causes of concern.

- ☑ Physical Resources. “Physical resources have been identified as a concern to both faculty and students. Currently, the physical resources of the architecture department seem *barely* adequate for students’ educational needs, supplemented by the innovative faculty solutions (such as *Design on Main*). However, support spaces such as the woodshop, lab, and other resources do not fully address the needs of the entire student body. Faculty offices are also becoming an increasing issue.”
- ☑ Required Sets of Elective Options. “While the ‘required sets of elective options’ allow for a deeper exploration of specific knowledge for both students and faculty, the existing structure of these courses still does not guarantee equal exposure to the entire NAAB Student Performance Criteria for all students.”
- ☑ Core Studies. “Students and faculty have questioned whether the College of Design core courses in the freshman year (pre-architecture) prepare students for the B.Arch. Program, both in terms of rigor and relevant academic advisement.”

◇ Conditions Met with Distinction.

- ☑ Technical Documentation. “Students showed admirable skills in the design and construction of physical scale models.”

- ☑ Collaboration. “Collaboration was not only required in many levels of learning in both the B.Arch. and M.Arch. Programs, but integral to the learning culture of the school both for students and faculty as they acknowledge it as essential to professional work and interpersonal relationships as a whole.”
  
- ◇ Accreditation Status. In August 2013, the National Architectural Accreditation Board awarded accreditation to the Architecture programs at ISU for an eight-year period through 2021 with two requirements – (1) submission of an Annual Statistical Report; and (2) submission of an *Interim Progress Report* two and five years after the on-site visit. Programs are also required to make all related accreditation documents available to the public. The accrediting body does not require an immediate response from the College on the items which were not met. An initial review by the College leadership identified that the issues can be readily addressed by the department and the college. The faculty will begin to develop plans and implement changes during Spring 2014.

Contact: Diana Gonzalez

**ENGINEERING PROGRAMS ACCREDITATION REPORT**  
**AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report from the Engineering Programs in the College of Engineering at Iowa State University.

**Executive Summary:** The College of Engineering offers Bachelor of Science programs in engineering in 12 areas - Aerospace Engineering, Agricultural Engineering, Biological Systems Engineering (new), Chemical Engineering, Civil Engineering, Computer Engineering, Construction Engineering, Electrical Engineering, Industrial Engineering, Materials Engineering, Mechanical Engineering, and Software Engineering (new).

All of the programs (1) underwent a self-study that addressed the criteria defined by the accrediting body; and (2) had an on-site visit by peer evaluators. The programs were accredited for the maximum period. There were no Deficiencies<sup>2</sup> identified for any of the programs. There were Weaknesses<sup>3</sup> identified for two programs (Chemical Engineering and Construction Engineering); both were resolved. Concerns<sup>4</sup> were identified for four programs (Aerospace Engineering, Chemical Engineering, Construction Engineering, and Mechanical Engineering); three concerns were resolved. There were Observations<sup>5</sup> identified for five programs (Aerospace Engineering, Chemical Engineering, Construction Engineering, Electrical Engineering, and Mechanical Engineering). This report addresses the Board's Strategic Plan priorities for "access, affordability, and student success; educational excellence and impact; and economic development and vitality."

**Background:**

- ◆ Description of Programs. Engineering is the application of science and mathematics to solve problems for society.
  - ☑ Aerospace Engineering – conduct cutting-edge research in nondestructive evaluation, complex systems, computational and experimental aerodynamics, guidance, navigation and control, aircraft icing, composite structure, and micro/nano mechanics of materials.
  - ☑ Agricultural Engineering – research agricultural water quality and management, engineering for economically and environmentally sound animal production systems, grain handling and food processing, agricultural machine design and automated controls, precision farming systems, agricultural safety, seed conditioning and processing, and soil tillage and management systems.

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<sup>2</sup> A Deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program is not in compliance with the criterion, policy, or procedures.

<sup>3</sup> A Weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next evaluation.

<sup>4</sup> A Concern indicates that a program currently satisfies a criterion, policy, or procedure; however, the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied.

<sup>5</sup> An Observation is a comment or suggestion that does not relate directly to the accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

- ☑ Biological Systems Engineering – involve the sustainable production, storage, and conversion of biobased materials into useful products.
  - ☑ Chemical and Biological Engineering – design plant equipment and devise processes for manufacturing chemicals and products; biological engineers analyze biological systems and solve problems in plant, animal or microbial systems.
  - ☑ Civil Engineering – include five specialties: environmental engineers, geotechnical engineers, materials engineers, structural engineers, and transportation engineers.
  - ☑ Computer Engineering – develop systems to protect critical infrastructures and invent new technologies.
  - ☑ Construction Engineering – focus on a certain type of construction project, including building, heavy/highway, mechanical, and electrical.
  - ☑ Electrical Engineering – include electric power systems, biomedical imaging equipment used by doctors, tiny chips that operate smartphones and other electronics, wireless technology, and nanotechnologies used by biologists to conduct experiments.
  - ☑ Industrial Engineering – design, develop, implement, and improve integrated systems that include people, materials, information, equipment, and energy.
  - ☑ Materials Engineering – study the structure and composition of materials on scales ranging from the electronic and atomic through the microscopic to large structures.
  - ☑ Materials Engineering – create new materials and improve existing materials.
  - ☑ Mechanical Engineering – apply the principles of motion, energy, and force to create mechanical solutions to technological problems.
  - ☑ Software Engineering – expand the limits of what computers, cell phones, pacemakers, and other electronic devices can do by developing and improving software that runs the devices.
- ◆ Purpose of Accreditation. An accredited educational program is recognized by its peers as having met national standards for its development and evaluation. To employers, graduate schools, and licensure, certification, and registration boards, graduation from an accredited program signifies adequate preparation for entry into the profession. In fact, many of these groups require graduation from an accredited program as a minimum qualification. Accreditation is also intended to protect the interests of students, benefit the public, and improve the quality of teaching, learning, research, and professional practice.
- ◆ Accrediting Agency. The accrediting body is the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).
- ◆ Review Process. The self-studies prepared by the Engineering Programs contained the responses to the criteria required by the accrediting body – students; program educational objectives; student outcomes; continuous improvement; curriculum; faculty; facilities; and institutional support; and program specific criteria.
- ◆ On-Site Team Report. In November 2012, the visiting team determined that the Engineering Programs met the requirements for accredited status.

- ◇ Sample Institutional Strengths Identified by the Visiting Team.
  - ☑ “The College of Engineering has exceptional laboratory facilities and has made a major investment in improving and maintaining its facilities.
  - ☑ The college and its faculty are dedicated to providing extensive, meaningful, hands-on applications for its students, and have made it a significant part of its brand.
  - ☑ Now only is Iowa State University a major research institution, the faculty are also passionate about providing the highest quality education for its undergraduate students.”
  
- ◇ Sample Program Strengths Identified by the Visiting Team.
  - ☑ Aerospace Engineering. “The rich industrial and government experience of program faculty is beneficial to student learning of current professional practice.”
  - ☑ Agricultural Engineering. “The program receives extensive support from industry and from the External Advisory Council which met with donors and members of the legislature to secure funding for the new building. This has resulted in teaching laboratories that are stocked with an impressive collection of state-of-the-art equipment and instrumentation, including an array of diesel engines, hydraulic trainers, electronic workstations, HVAC trainers, and CNC machines, as well as ongoing efforts to acquire equipment to furnish the new building with additional laboratory stations. This provides a level of hands-on learning combined with theory that is rare in academic settings. Several external advisory council members attested to the positive effect of these experiences on the students’ learning.”
  - ☑ Biological Systems Engineering. “The program has a student population is 50% female, demonstrating noteworthy gender equity in an academic engineering program. One of the minority faculty members specifically commented on the atmosphere of inclusiveness in the department. The commitment to diversity goes beyond fairness and demographics and is understood as essential to the creative nature and relevance of the engineering profession. The students are well-served by learning in a diverse environment.”
  - ☑ Chemical Engineering. “The department faculty has been very proactive in supplementing funds from the College of Engineering to enhance the educational opportunities of students, particularly focusing on support to improve the quality and quantity of equipment for the undergraduate teaching laboratories.”
  - ☑ Civil Engineering. “The faculty members are well qualified and cover the areas of structures, geotechnical, environmental, transportation, materials, and hydrology and hydraulics, with more than one person for each area.”
  - ☑ Computer Engineering. “Two courses, computer architecture and embedded systems, are outstanding examples of the hands-on, laboratory-intensive education that characterizes engineering programs at Iowa State University. Students described these courses as challenging, work-intensive, transformative learning experiences, and the amount and quality of what they had learned as ‘cool’ or ‘magical.’ These exemplary learning experiences were made possible by the creativity and dedication of the faculty members who developed the projects and the laboratory facilities.”

- ☑ Construction Engineering. “Students from the program have been especially successful in pressure-filled, time-constrained, realistic construction engineering and management competitions, such as those conducted by the Associated General Contractors and Associated Schools of Construction, placing first in 14 of the last 16 events, in competition with students from an eight-state region.”
- ☑ Electrical Engineering. “The program has excellent laboratory facilities with appropriate funding for maintenance and upgrading. The program has an enthusiastic faculty that cares about the students.”
- ☑ Industrial Engineering. “The faculty and staff of the program have developed a nurturing environment through enhanced faculty-student interactions. These include volleyball and dodge ball competitions, and dinners at faculty homes. Two effects of these interactions and the environment they have created are a 34% increase in the number of majors over the past three years and an outstanding retention rate of 90.5%.”
- ☑ Materials Engineering. “The professional advisors, senior lecturers, and tenured and tenure-track faculty members work together to address all aspects of student development. The communication is exceptional and is focused on student achievement. This synergy assures that students get the best educational experience possible.”
- ☑ Mechanical Engineering. “The program emphasizes experiential education opportunities. The program has enhanced hands-on opportunities in the laboratories. A large majority of its graduates complete a co-op or internship experience (83%) and many of its graduates study abroad (20%). The students are enriched by these opportunities and feel well-prepared for the workplace. The program shares manufacturing laboratories with the industrial engineering program. This synergy has allowed the purchase of four new CNC machines that are integrated with a CAD laboratory. The new CAD/CNC laboratory provides a rich learning experience for the mechanical engineering students.”
- ☑ Software Engineering. “The software engineering program benefits from faculty members with great passion for undergraduate education and the software engineering field. This is evidenced by their enthusiasm for the curriculum and students, and by the positive feedback received from the students about the program faculty.”
- ◇ Weaknesses Identified by the Visiting Team. (Institutional responses are in italics.)
  - ☑ Chemical Engineering.
    - 📖 Curriculum. “Criterion 5 requires that the faculty ensure that the program curriculum includes 1½ years of engineering topics, consisting of engineering sciences and engineering design appropriate to the student’s field of study. The engineering sciences have their roots in mathematics and basic sciences but carry knowledge further toward creative application. The Self-Study Report identified 48 hours of engineering topics including three hours of professional electives that could be selected from advanced physical or life sciences, engineering, mathematics, statistics, or computer science. The list of courses used to meet this requirement includes courses that could not be appropriately considered engineering topics. Analysis of the transcript samples of recent

graduates indicated that two out of six graduates only had 45 hours of engineering topics. In subsequent discussions with program representatives, other required courses were identified which could possibly be partially counted toward the engineering topic requirement. However, the engineering content of these added courses was insufficient to bring the total to 48 hours of engineering topics. Consequently, the program lacks the strength of compliance with this criterion.”

*A curriculum change ensures that all graduates will have the required 48 hours of engineering topics. The three-credit hour chemical engineering course, Chemical Process Safety, which was offered as an elective in Fall 2012, is now required for graduation. This change increases the total number of credits required for graduation from 126 to 129.*

The weakness was resolved.

Construction Engineering.

Continuous Improvement. “Criterion 4 requires that a program regularly use appropriate, documented processes for assessing and evaluating the extent to which the student outcomes are being attained. The program has an assessment and evaluation process in place, but primarily uses opinion-based surveys which are subjective indicators of performance that are of limited value in assessing the attainment of student outcomes and identifying opportunities for improving the program. The program analyzes results from the Fundamentals of Engineering examination, but did not explain how it uses those results to evaluate the attainment of individual student outcomes. Various senior design project reports and presentations were used to infer student performance on an entire group of student outcomes collectively. Thus the program is not able to determine the extent to which students are attaining each individual outcome, and consequently may miss opportunities to improve the program. The program lacks strength of compliance with this criterion.”

*The program has developed and implemented additional tools with rubrics for assessment and evaluation of the extent to which individual student outcomes are attained. These tools include mapping of results on individual sections of the Fundamentals of Engineering examination to attainment of specific outcomes, and separate assessment of the level of attainment of each outcome based on laboratory report and final examination questions in junior- and senior-level courses as well as senior project design.*

The weakness was resolved.

◇ Program Concerns Identified by the Visiting Team. (Institutional responses are in italics.)

Aerospace Engineering.

Continuous Improvement. “This criterion requires that there be an assessment and evaluation process that periodically documents and demonstrates the degree to which the program educational objectives are attained. The aerospace engineering program has a process in place that satisfies this requirement. However, new assessment tools that were approved by the faculty and the Industrial Advisory Committee in spring 2011 have not yet been fully implemented. Should these new processes not prove effective for assessing

and evaluating the extent to which the program educational objectives are being attained, the potential exists for future compliance with this criterion to be jeopardized.”

*The Engineering Accreditation Commission notes that an approved change to the 2013-2014 Criteria for Accrediting Engineering Programs removes the requirement for assessing and evaluating the extent to which the program educational objectives are attained. Instruction from the ABET Board of Directors concerning implementation of this change renders this shortcoming moot in the future. No further action is expected from the program relative to assessment and evaluation of the extent to which program educational objectives are attained.*

The concern was resolved.

Chemical Engineering.

 Program. “This criterion requires that the curriculum provide a thorough grounding the basic sciences including chemistry, physics, and/or biology, with some content at an advanced level, as appropriate to the objectives of the program. The program criteria further require that the curriculum include the engineering application of these basic sciences to the design, analysis, and control of chemical, physical, and/or biological processes, including the hazards associated with these processes. The program has incorporated curricular elements that address the hazards associated with relevant processes such that the program criteria are currently satisfied. The program is planning further modifications, with the goal of enhancing its coverage of hazards. However the impact of these changes is not yet known. The potential therefore exists for the program to fall out of compliance with this criterion in the future.”

*The curriculum change now ensures uniform and enhanced training in chemical hazards for all students in the program. The three-credit chemical engineering course, Chemical Process Safety, which was offered as an elective in Fall 2012, is now required for graduation. This change increases the total number of credits required for graduation from 126 to 129.*

The concern was resolved.

Construction Engineering.

 Program. “This criterion requires the program to prepare graduates to analyze and design construction processes and systems in a construction engineering specialty field, applying knowledge of equipment. The program criteria also require the program to prepare students to explain the importance of professional engineering licensure in the construction industry. The program presented oral evidence that these topics are included in the curriculum; however, they are not documented in the self-study report, course titles, course descriptions, or course syllabi. Since these topics are not explicitly included in the curricular requirements, it is possible that they could be inadvertently omitted in the future, which would jeopardize compliance with the program criteria.”

*Revised syllabi for three courses demonstrate that all students are not explicitly required to include application of equipment in analysis and design of construction processes and systems. Revised syllabi were received for another three courses, which now explicitly address the preparation of students to explain the importance of licensure in the construction industry.*

The concern was resolved.

Mechanical Engineering.

-  Faculty. “This criterion requires that the faculty be of sufficient number and must have the competencies to cover all of the curricular areas of the program. The criterion further requires that there be sufficient faculty to accommodate adequate levels of student-faculty interaction, student advising and counseling, university service activities, professional development, and interactions with industrial and professional practitioners, as well as employers of students. During the last general review a concern was raised over the student-to-faculty ratio of 33 in the program due to an increase in enrollment to 1,051 undergraduates. Since that time the program has hired additional full-time faculty members, resulting in an increased student-to-faculty ratio of 38. While the faculty size is currently sufficient, further increases in student enrollment without a commensurate growth in the faculty size may result in an insufficient number of faculty members to provide adequate coverage of the program’s needs. The potential therefore exists for the program to fall out of compliance with this criterion in the future.”

*The engineering college allocates resources based on enrollment through structured resource management model, and that a lag in the college’s response resulted from the abruptness of the increase in the program’s enrollment (>12% from fall 2011 to fall 2012). In light of the growing enrollment in the mechanical engineering program, the interim dean has approved the hire of two additional faculty members in mechanical engineering for fall 2013. Further, the incoming dean has negotiated an additional 10 faculty positions to improve student-to-faculty ratios in the engineering college, of which the mechanical engineering program is expected to receive at least one. However, there was no evidence that any of these new faculty members has yet been hired, or that searches are in progress.*

The concerns remains unresolved.

-  Facilities. “This criterion requires that the laboratories be adequate to support attainment of the student outcomes and provide an atmosphere conducive to student learning. The program enrollment has undergone considerable growth over the last four years. Laboratory space is currently sufficient to meet the requirements of the program. However, as the mechanical engineering program enrollments continue to increase, the potential exists that there will not be sufficient laboratory space to meet the demands of the program, thereby jeopardizing future compliance with this criterion.”

*The Dean's office has committed funds to allow the Department of Mechanical Engineering to hire an outside architectural firm to assist in assessing space utilization, space needs, and planning for more efficient use and possible expansion of its existing building to address the acute facility needs of the mechanical engineering program. The college is prepared to provide up to \$100,000 to cover the expenses associated with such an investigation, which is expected to lead to increased availability of space for the program. This study is expected to be completed in six months. However, no results from the study are yet available at this stage of the process.*

The concern remains unresolved.

◇ Program Observations Identified by the Visiting Team.

☑ Aerospace Engineering.

📖 “Additional opportunities in the area of astronautical engineering beyond the single required course in astrodynamics could enhance the curriculum and broaden the range of opportunities for graduates.”

☑ Chemical Engineering.

📖 “The program faculty in consultation with the department’s Advisory Council has been prioritizing student outcomes, and appears to have concluded that outcomes such as understanding professional and ethical responsibility, understanding the impact of engineering decisions, knowledge of contemporary issues, and engaging in lifelong learning have a lower priority than other outcomes. The program must ensure that it continues to meet Criterion 3 that requires the program to have documented student outcomes that prepare graduates to attain the program educational objectives. The engineering accreditation criteria define student outcomes as outcomes (a) through (k) plus any additional outcomes that may be articulated by the program.

☑ Construction Engineering.

📖 “The program could be enhanced by coverage of building information modeling, either in a specific course or integrated throughout the curriculum. The program could be enhanced by the development of a dedicated construction engineering laboratory, to give students experience with construction equipment, temporary structures, and building materials, including structural, mechanical, and electrical components and systems.”

☑ Electrical Engineering.

📖 “Some classes require textbooks that are not sued. Given the high cost of books, students could benefit if the need for a textbook in a class were more carefully assessed. The teaching assistants in some classes have difficulty speaking English, resulting in a communications gap with the students. Assistance with language skills would help both the students in the program and their teaching assistants.”

☑ Materials Engineering.

📖 “The curriculum requires three engineering mechanics courses, Statics, Strength of Materials, and Dynamics. These courses use on-line software for receiving and grading class problem assignments. The on-line program provides no feedback or partial credit when students fail to solve problems correctly. The students would benefit from feedback on their incorrect solutions.”

- ◇ Accreditation Status. In August 2013, the Engineering Accreditation Commission of ABET awarded accreditation to the Engineering Programs, including the two new programs - Biological Systems Engineering and Software Engineering, at ISU for the maximum period through September 2019. No focused reviews or interim reports are required.

Contact: Diana Gonzalez

**DESIGN PROGRAMS**  
**ACCREDITATION REPORT AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report for the Design programs in the Colleges of Design, Human Sciences, and Liberal Arts and Sciences at Iowa State University.

**Executive Summary:** The programs (1) underwent a self-study that addressed the standards of accreditation defined by the accrediting body; and (2) had an on-site visit by peer evaluators. The programs were accredited for the maximum five-year period through 2018-19. The accrediting agency granted accreditation for all the programs except the Bachelor of Design Program; the accrediting agency deferred action on the application for plan approval for this program and requested additional information. The accrediting agencies also granted plan approval for the Bachelor of Industrial Design Program and the Master of Industrial Design Program.

This accreditation report addresses the Board of Regents Strategic Plan priorities for “access, affordability, and student success; educational excellence and impact; and economic development and vitality.”

**Background:**

◇ Description of undergraduate programs.

- ☑ Bachelor of Arts Program in Art and Design – provides two options (Art and Culture, Visual Culture Studies). Both options require students to complement their art coursework with study in an area outside of the College of Design, including a second major or minor.
- ☑ Bachelor of Arts Program in Biological/Pre-medical Illustration – students take a mix of courses concentrated on the natural sciences in the College of Liberal Arts and Sciences and studio art in the College of Design. They learn the latest artistic techniques, visual design skills, and the business of being a visual communicator.
- ☑ Bachelor of Science Program in Apparel, Merchandising, and Design (Creative and Technical Design) – provides a comprehensive base of knowledge about the textiles and apparel industry, including merchandising and marketing strategies, product development, and production processes.
- ☑ Bachelor of Fine Arts Program in Graphic Design – provides the foundation for a career in the visual communication profession.
- ☑ Bachelor of Fine Arts Program in Integrated Studio Arts – focuses on in-depth work with an emphasis on crossing conceptual and medial boundaries.
- ☑ Bachelor of Fine Arts Program in Interior Design – provides the foundation for becoming a registered interior designer; develops competencies in creative problem solving, ergonomics, lighting, history, structures, color, materials, building and fire codes, as well as understanding of people and the way environment affects behavior.

- ☑ Bachelor of Design Program – interdisciplinary program that focuses on thinking creatively about addressing society’s increasing economic, social, and environmental challenges.
- ☑ Bachelor of Industrial Design Program – provides the foundation for a career in a variety of commercial product design and service professions.
- ◇ Description of graduate programs.
  - ☑ Master of Arts Program in Art and Design (Environmental Graphic Design, Graphic Design, Interior Design) – expands knowledge through new problem-finding/solving situations; relies heavily on such areas as methodology, history, research, and testing to arrive at new communications.
  - ☑ Master of Science Program in Apparel, Merchandising, and Design (Apparel Design, Apparel Design-History) – includes introductory study in apparel, merchandising, and design, research methods and statistics, major course work in apparel, merchandising, and design and related disciplines outside apparel, merchandising, and design.
  - ☑ Master of Fine Arts Program in Graphic Design - expands knowledge through new problem-finding/solving situations; relies heavily on such areas as methodology, history, research, and testing to arrive at new communications.
  - ☑ Master of Fine Arts Program in Integrated Visual Arts – interdisciplinary program offering integrative study among a combination of areas, including ceramics, computer applications, drawing, textiles, illustration, jewelry/metalsmithing, painting, printmaking, photography, furniture design, and areas outside of Art and Design.
  - ☑ Master of Fine Arts Program in Interior Design – emphasizes formal theoretical, technical and methodological preparation for the design of interior spaces.
  - ☑ Master of Industrial Design Program – studio-based program which offers mix of skills and experience in preparation for professional practice in a range of related fields.
- ◇ Purpose of Accreditation. An accredited educational program is recognized by its peers as having met state and national standards for its development and evaluation. To employers, graduate schools, and licensure, certification, and registration boards, graduation from an accredited program signifies adequate preparation for entry into the profession. In fact, many of these groups require graduation from an accredited program as a minimum qualification. Accreditation is also intended to protect the interests of students, benefit the public, and improve the quality of teaching, learning, research, and professional practice.
- ◇ Accrediting Agency. The accrediting body is the National Association of Schools of Art and Design (NASAD) Commission on Accreditation. This is the first time that Iowa State University has sought accreditation from NASAD. All program associated with “Design” were submitted for accreditation consideration. The new programs (Bachelor of Industrial Design Program and Master of Industrial Design Program) were submitted for “planning accreditation.”

- ◇ Review Process. The self-studies prepared by the “Design” programs contained the responses to the appropriate standards/guidelines required by the accrediting body – purposes set forth by the individual school; manner in which goals and objectives relate to standards for accreditation characteristic of educational institutions; comprehensive presentation of the educational philosophy and concepts that determine goals and objectives; and degree to which goals and objectives have been achieved. Standards are applied recognizing that (1) a unique relationship exists in each art/design unit between operations (goals, objectives, resources, policies, etc.) and programs (curricula, presentations, research, scholarship, etc.) and (2) evaluation and management of this relationship are crucial to the effectiveness with which the art/design unit shapes its programs, relates them to the mission and goals of the institution, and produces educational results.
  
- ◇ On-Site Team Report. In November 2012, the visiting team determined that the “Design” programs, except the Bachelor of Design Program, met the requirements for accredited status.
  
- ◇ Notes from the Commission.
  - ☑ “The Commission acknowledges the valuable resources provided to the Department of Apparel, Events, and Hospitality Management by the Textile and Clothing Museum and Morrill Hall.
  - ☑ The Commission notes that due to purposes and required content, two options of the Bachelor of Science Program – Apparel, Merchandising, and Design (merchandising, Product Development and Sourcing) do not fall under NASAD’s purview. Further, for the same reason, the Ph.D. Program in Apparel, Merchandising and Design, does not fall under NASAD’s purview. The Commission notes with concern that the term ‘Design’ is used in the doctoral degree title despite the apparent lack of design content or requirements.
  - ☑ With regard to title/content consistency issues associated with the current Bachelor of Design and Ph.D. Program in Apparel, Merchandising, and Design, the institution is strongly advised to review the NASAD Advisory on new federal regulations regarding misrepresentations.
  - ☑ The Commission commends the institution for its thorough Self-Study and informative Optional Response and for developing what appears to be a unique pre-professional degree program in design.”
  
- ◇ Accreditation Status. In October 2013, the National Association of Schools of Art and Design Commission on Accreditation took the following actions:
  - ☑ Awarded accreditation for the maximum period of five years to the following programs:
    - ⇒ Bachelor of Arts Program – Art and Design (Art and Culture, Visual Culture Studies); biological/Pre-Medical Illustration.
    - ⇒ Bachelor of Science Program – Apparel, Merchandising, and Design (Creative and Technical Design).
    - ⇒ Bachelor of Fine Arts Programs – Graphic Design; Integrated Studio Arts; Interior Design.

- ⇒ Master of Arts Program – Art and Design (Environmental Graphic Design, Graphic Design, Interior Design).
- ⇒ Master of Science Program – Apparel, Merchandising, and Design (Apparel Design, Apparel Design-History).
- ⇒ Master of Fine Programs – Graphic Design; Integrated Visual Arts; Interior Design.
- Granted ‘Plan Approval’ to the following programs:
  - ⇒ Bachelor of Industrial Design Program.
  - ⇒ Master of Industrial Design Program.
  - ⇒ “As the requisite number of transcripts become available for each of these programs (three transcripts for each undergraduate program, two for each graduate program), the institution should submit the respective applications for Final Approval for Listing.”
- Deferred action on the application for ‘Plan Approval’ for the Bachelor of Design Program.
  - ⇒ “It remains unclear how the institution meets standards regarding liberal arts degree title and content consistency. NASAD standards state, ‘program and degree titles should be consistent with content.’ Further the policies and principles for titling professional degree programs in art and design stipulate that titles such as Bachelor of Science or Bachelor of Design may be used if degree structure and content is equivalent to that required for the Bachelor of Fine Arts degree. The Rules of Practice and Procedure indicate enrollment levels, public relations, unit locations, and resource availability are important elements in determining an institution’s program offerings, but they are not appropriate criteria for assigning degree titles.
  - ⇒ If the institution intends to maintain the title Bachelor of Design, further information is required to demonstrate how curricular requirements ensure development of all competencies expected for undergraduate professional degrees.
  - ⇒ If the institution intends to maintain the title Bachelor of Design, further information is required to demonstrate how curricular requirements ensure development of all competencies expected for undergraduate professional degrees.
  - ⇒ Alternatively, if the institution intends to maintain the current content and intent as a liberal arts degree, the Commission requests further information regarding use of a title that is consistent with such intentions. The appropriate title for liberal arts design degrees is Bachelor of Arts in Design Studies.
  - ⇒ The response deadline for consideration at the Commission meetings of April 2014 is March 1, 2014.”

- ◇ Institution's Implemented or Planned Changes. The College of Design plans to submit the required transcripts to seek full accreditation for the Bachelor of Industrial Design Program and the Master of Industrial Design Program. The College is also in continued negotiation with NASAD related to the Bachelor of Design Program. Currently, there is no plan to change titles either for the Bachelor of Design or the Ph.D. Program in Apparel, Merchandising, and Design.

Contact: Diana Gonzalez

**DIETETIC INTERNSHIP PROGRAM**  
**ACCREDITATION REPORT AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report for the Dietetic Internship Program in the Colleges of Human Sciences and Agriculture and Life Sciences at Iowa State University.

**Executive Summary:** The program prepared a Program Assessment Report which addressed the standards of accreditation defined by the accrediting body. This accreditation review fulfilled the requirement for a mid-accreditation review. The accrediting agency granted continued accreditation until 2018. This accreditation report addresses the Board of Regents Strategic Plan priorities for “access, affordability, and student success; educational excellence and impact; and economic development and vitality.”

**Background:**

- ◇ **Description of program.** This non-degree program is a full-time, 25-week distance program offering at least 1200 hours of supervised practice in medical nutrition therapy, community nutrition, and food service management with a concentration area in health promotion and technology. The program offers four locations:
  - ⇒ Iowa-based location – all supervised practice is completed within the state of Iowa or surrounding states. ISU faculty arrange preceptors and schedule.
  - ⇒ Nationwide location – the intern selects preceptors and facilities in his or her geographic area.
  - ⇒ Iowa-based with international location – ISU faculty arrange preceptors and schedule. The first 1000 hours of medical nutrition therapy and management dietetics are located in the U.S. The 200-hour community rotation takes place in Ghana, Africa.
  - ⇒ Nationwide with international location – the intern selects preceptors and facilities in his or her geographic area. The first 1000 hours of medical nutrition therapy and management dietetics are located in the U.S. The 200-hour community rotation takes place in Ghana, Africa.
  
- ◇ **Purpose of Accreditation.** An accredited educational program is recognized by its peers as having met state and national standards for its development and evaluation. To employers, graduate schools, and licensure, certification, and registration boards, completion of an accredited program signifies adequate preparation for entry into the profession. In fact, many of these groups require completion of an accredited program as a minimum qualification. Accreditation is also intended to protect the interests of students, benefit the public, and improve the quality of teaching, learning, research, and professional practice.
  
- ◇ **Accrediting Agency.** The accrediting body is the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The Dietetics Internship program received 10-year accreditation in 2008 but was required to submit a five-year continuing accreditation review report. A site visit was not required.

- ◇ Review Process. The Program Assessment Report addressed the accrediting agency standards in the following areas – Program Characteristics and Finances; Program Planning and Outcomes Assessment; Curriculum and Student Learning Objectives; Program Staff and Resources; and Students. Complete guidelines are available at <http://www.eatright.org/ACEND/>.
  
- ◇ Accreditation Status. In October 2013, the Accreditation Council for Education in Nutrition and Dietetics granted continued accreditation status to the Dietetics Internship Program based on the Program Assessment Report. Accreditation is continued for a non-degree program enrolling 160 full-time intern annually and a Technology in Health Promotion concentration. The next review and site visit are scheduled for 2018.

Contact: Diana Gonzalez

**DIDACTIC PROGRAM IN DIETETICS**  
**ACCREDITATION REPORT AT IOWA STATE UNIVERSITY**

**Action Requested:** Receive the accreditation report for the Didactic Program in Dietetics and the BS/MS Program in Diet and Exercise in the Colleges of Human Sciences and Agriculture and Life Sciences at Iowa State University.

**Executive Summary:** The programs prepared a Program Assessment Report which addressed the standards of accreditation defined by the accrediting body. This accreditation review fulfilled the requirement for a mid-accreditation review. The accrediting agency granted continued accreditation until 2018. This accreditation report addresses the Board of Regents Strategic Plan priorities for “access, affordability, and student success; educational excellence and impact; and economic development and vitality.”

**Background:**

- ◇ **Description of Didactic Program in Dietetics.** This program provides coursework for an undergraduate degree in dietetics or for concurrent undergraduate and graduate degrees in diet and exercise. Graduates of the program are eligible to apply for admission to accredited/approved dietetic internships/supervised practice programs. Upon successful completion of the internship program, graduates are eligible to take the national examination administered by the Commission on Dietetic Registration to become a Registered Dietitian (R.D.) and to practice in the field of dietetics. This program, which enrolls 70-100 students annually, is the only accredited undergraduate program in dietetics in the state of Iowa.
- ◇ **Description of BS/MS Diet and Exercise Program.** This program is designed for students interested in earning concurrent bachelor’s and master’s degrees focused on diet and exercise; students can earn both a bachelor’s and master’s degree in five to six years. The program meets the Didactic Program in Dietetics requirements for students to pursue accredited supervised practice/dietetic internships and take the national exam to become a registered dietitian.
- ◇ **Purpose of Accreditation.** An accredited educational program is recognized by its peers as having met state and national standards for its development and evaluation. To employers, graduate schools, and licensure, certification, and registration boards, graduation from an accredited program signifies adequate preparation for entry into the profession. In fact, many of these groups require graduation from an accredited program as a minimum qualification. Accreditation is also intended to protect the interests of students, benefit the public, and improve the quality of teaching, learning, research, and professional practice.
- ◇ **Accrediting Agency.** The accrediting body is the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The Didactic Program in Dietetics received 10-year accreditation in 2008 but was required to submit a five-year continuing accreditation review report. A site visit was not required.

- ◇ Review Process. The Program Assessment Report addressed the accrediting agency standards in the following areas – Program Characteristics and Finances; Program Planning and Outcomes Assessment; Curriculum and Student Learning Objectives; Program Staff and Resources; and Students. Complete guidelines are available at <http://www.eatright.org/ACEND/>.
- ◇ Notes from Accreditation Council. “ACEND values your commitment to the quality and continued improvement of your program as demonstrated during the accreditation process. In this spirit, the ACEND board commends your students and program for its 91% pass rate.”
- ◇ Accreditation Status. In October 2013, the Accreditation Council for Education in Nutrition and Dietetics granted continued accreditation status to the Didactic Program in Dietetics based on the Program Assessment Report. Accreditation is continued for a Didactic Program in Dietetics at the baccalaureate and master’s level. The next review and site visit are scheduled for 2018.