

Contact: Diana Gonzalez

**REQUEST FOR A NEW PROGRAM AT IOWA STATE UNIVERSITY:
BACHELOR OF INDUSTRIAL DESIGN PROGRAM**

Action Requested: Consider approval of the request by Iowa State University to establish a new Bachelor of Industrial Design Program which will be administered by the Department of Art and Design in the College of Design.

Executive Summary: The proposed program is designed to provide students with the design skills and problem-solving methods necessary to create useful, sustainable, and socially and culturally relevant products and interactions. This proposal was reviewed by the Board Office and the Council of Provosts and is recommended for approval. No concerns were raised when it was presented to the Iowa Coordinating Council for Post-High School Education. The proposed program addresses the Board of Regents Strategic Plan priority to provide "educational excellence and impact."

Background:

- ◇ **Description of Industrial Design.** Industrial design is the creation and development of concepts and specifications that optimize the function, value, and appearance of products and systems for the mutual benefit of both user and manufacturer. The industrial designer's unique contribution places emphasis on those aspects of the product or system that relate most directly to human characteristics, needs, and interests. This contribution requires specialized understanding of visual, tactile, safety, and convenience criteria, with concern for the user. Industrial design links knowledge about technology and the visual arts with knowledge about people.¹
- ◇ **Proposed program learning outcomes.** Learning outcomes will be assessed by studio-based and lecture-based metrics for interaction and product design creation and development, as codified by the National Association of Schools of Art and Design, the accreditation body in industrial design education. Some of the learning outcomes include an understanding of how products work; how products are manufactured; in-depth knowledge of social and cultural issues affecting interactions and product user needs and decisions; ability to develop new products and interactions for specific and broadly-based societal needs; knowledge to bring products and interactions to reality through interdisciplinary collaboration; and understanding of industrial design and its relation to human factors and user interfaces.
- ◇ **Relationship to existing programs.** Within the College of Design, the proposed program will offer opportunities for collaboration with architecture, graphic design, interior design, landscape architecture, and integrated studio arts. The proposed program will also have the potential to bring together numerous resources, such as the Biorenewables Laboratory for the Bioeconomy Institute, engineering, psychology, marketing, and business, with the discipline of the design process. The availability of minors in engineering and business will allow students to be engaged outside of the College of Design and will allow faculty to collaborate in research with these and other disciplines.

¹ Source: Industrial Designers Society of America.

- ◇ Duplication. The proposed program is not offered at any institution of higher education in Iowa. Students choosing to pursue this field must leave the state to do so. Available programs in the Midwest are at the University of Illinois at Urbana-Champaign, University of Illinois at Chicago Circle, University of Wisconsin-Stout, Southern Illinois University, or University of Kansas.
- ◇ Student demand. The proposed program is expected to appeal to prospective students of the College of Design, including students who do not currently matriculate into one of the existing degree programs. Regional students from Minnesota, Missouri, South Dakota, North Dakota, and Nebraska, states without industrial design programs, are likely sources of students.
- ◇ Projected enrollment. The projected enrollment is 20 students in Year 1, increasing to 60 students by Year 7.
- ◇ Unique features. The College of Design is one of only six design schools in the United States which offers the disciplines of architecture, community and regional planning, landscape architecture, interior design, graphic design, and art, all of which are available for interdisciplinary study. The addition of the proposed program would increase the college's opportunities for research, outreach, professional practice, teaching, and learning.
- ◇ Need for proposed program. The U.S. Department of Labor, Bureau of Labor Statistics, states that the demand for industrial designers outweighs the current supply and is expected to increase due to companies continuing to emphasize the quality and safety of their products. Two of the fastest growing industries for this career path are transportation and medicine. Many employers prefer to hire candidates with experience specifically in industrial design so a bachelor's degree is becoming a minimum prerequisite to a career in industrial design. Increased demand for industrial designers will stem from four factors – (1) people will continue to want safe, good-quality products; (2) consumers will demand new products that are easy and comfortable to use; (3) companies will continue to develop high technology products in medicine, transportation, and other fields; and (4) global competition among businesses will continue to grow.
- ◇ Resources. The College of Design will need to hire one new tenured faculty member as the director of the proposed program to initiate and lead the degree program and engage in industrial design research. The teaching labs needed for the proposed program include three studios for undergraduates; the College of Design anticipates housing these studios in the existing square footage if the Armory can be used.
- ◇ Cost. The proposed program will require an infusion of more rapid prototyping equipment and computer-driven equipment. An initial expenditure of \$500,000 over a three-year period is estimated for the necessary equipment. The projected staffing cost for Year 1 is \$80,000 and \$185,000 by Year 7. The proposed sources of funding are college reallocation, tuition revenue, and university allocations.
- ◇ Link to institutional strategic plan. The proposed program will integrate science, technology, social psychology, and design which is congruent with ISU's Strategic Plan mission to provide a venue for collaboration within the academic community by fostering cross-disciplinary cooperation and outside of the university through collaboration with corporate entities in the state and beyond.