

NEW, REVISED, OR DELETED PROGRAM COVER SHEET
2008-2009
University Curriculum Committee
Undergraduate Programs (Majors, Minors, Sequences)

DEPARTMENT/SCHOOL Technology DATE 10/10/08

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A. Proposed Action: (more than one item may be checked if a revision).

- New Major CIPS CODE **52.2001** (obtain from Planning, Policy Studies and Info Systems)
- New Minor CIPS CODE (obtain from Planning, Policy Studies and Info Systems)
- New Sequence
- Change in requirements for major
- Change in requirements for minor
- Change in requirements for sequence
- Other program revisions
- More than 50% of courses in this program are distance education.
- Program deletion

B. Summary of proposed action (see Part A), including title and exact *Undergraduate Catalog* copy for a new or altered program. (See *Catalog* and Program Checklist for format and examples.) Provide a summary of the revisions in addition to the exact current *Catalog* copy.

New major in Construction Management. Revise B.S. in Industrial Technology: Construction Management sequence to a B.S. in Construction Management. No programmatic changes proposed.

C. Routing and action summary:

1. _____ Department/School Curriculum Committee Chair Date Approved _____	4. _____ College Dean Date Approved _____
2. _____ Department Chair/School Director Date Approved _____	5. _____ Teacher Education Council Chair if appropriate (10 copies to the Dean of the College of Education) Date Approved _____
3. _____ College Committee Chair Date Approved _____	6. _____ University Curriculum Committee Chair (8 copies to the - UCC Secretary, Moulton 109) Date Approved _____

Submit 8 copies of **NEW** Undergraduate proposals to University Curriculum Committee
 Submit 8 copies of **REVISED** Undergraduate proposals to University Curriculum Committee
 All new and deleted programs (majors, minors, sequences) are routed by the U.C.C. to the Academic Senate. **The Senate rules mandate electronic submission (in MS Word or HTML format) of all materials for website posting.**

Old Catalog:

Technology Programs

Degree Offered: B.S.

MAJOR IN INDUSTRIAL TECHNOLOGY

Construction Management Sequence:

Construction Management is an interdisciplinary curriculum that provides a background in construction administration, construction technology, architectural and engineering principles, applied science, and mathematics. The goal of the sequence is to prepare construction professionals capable of managing projects to completion from plans prepared by design professionals. Course work emphasizes the allocation of labor, equipment, and material to construction projects in order to achieve completion at maximum efficiency of time and cost. The program focus is on production and management capabilities. The Construction Management sequence is accredited by the American Council on Construction Education (ACCE). Graduates are prepared to assume leadership positions in residential, commercial and specialty construction. Initial employment may include: field supervision, project management, estimating, and scheduling. Positions are also available in related areas such as code enforcement, construction financing, product sales, quality control, and safety management.

- 91 hours required.
- 20 hours in General Education: MQM 100; PSY 110; CHE 102; MAT 120; PHY 105; and 3 hours from one of the following: CHE 204; GEO 202, 207; or PHY 207.
- 10 hours in Industrial Technology core: TEC 100, 270, 313; HSC 272.
- 42 hours of required sequence courses: TEC 116, 120, 121, 123, 222, 223, 224, 226, 229, 292, 322, 325, 326, 327, and 394.
- 6 hours of sequence elective courses selected from the following: TEC 111, 211, 225, 240, 328, 329, 398 (3 hours); GEO 370.
- 10 hours from the College of Business and Department of Economics including: ACC 131; ECO 105; and FIL 185.
- 3 hours of sequence management electives from the following: HSC 385; MKT 230; TEC 320, 330, 370.

New Catalog:

Degree Offered: B.S.

MAJOR IN CONSTRUCTION MANAGEMENT

Construction Management is an interdisciplinary curriculum that provides a background in construction means and methods, business administration, communication skills, architectural and engineering fundamentals, and applied science and mathematics. The goal of the program is to prepare professionals capable of managing projects to completion from construction documents prepared by design professionals. Course work emphasizes the efficient and effective allocation of labor, equipment, and material to safely achieve project close-out within the specified budget, schedule, and quality standards. The Construction Management program is accredited by the American Council on Construction Education (ACCE). Graduates are prepared to assume leadership positions in residential, commercial and specialty construction. Initial employment may include: field supervision, project management, estimating, and scheduling. Positions are also available in related areas such as code enforcement, construction financing, product sales, quality control, and safety management.

- 91 hours required.
- 20 hours in General Education: MQM 100; PSY 110; CHE 102; MAT 120; PHY 105; and 3 hours from one of the following: CHE 204; GEO 202, 207; or PHY 207.
- 52 hours in Construction Management core: TEC 100, 116, 120, 121, 123, 222, 223, 224, 226, 229, 270, 292, 313, 322, 325, 326, 327, 394, and HSC 272.
- 6 hours of elective courses selected from the following: TEC 111, 211, 225, 240, 328, 329, 398 (3 hours); GEO 370.
- 10 hours from the College of Business and Department of Economics including: ACC 131; ECO 105; and FIL 185.
- 3 hours of management electives from the following: HSC 385; MKT 230; TEC 320, 330, 370.

Part A: Program Description and Explanations (New or Revised Programs) – CM Major

1. Institution: Illinois State University
2. Responsible department/school or administrative unit: Department of Technology
3. Proposed program title (if applicable): Construction Management
4. CIPS classification (applicable to new program): **52.2001** (description on last page of document)
5. Date of implementation: Fall 2009
6. Description of proposed program or name change: New major in Construction Management. Change the B.S. in Industrial Technology: Construction Management sequence to a B.S. degree in Construction Management. No programmatic changes proposed
7. Program Revision Proposal Rationale: The Construction Management (CM) sequence requires 91 hours, has discreet CIP code, is independently accredited by the American Council for Construction Education (ACCE) and has had steady enrollments of greater than 200 students annually since 2000. The CM sequence has all the characteristics of a major. At the Fall 2007 Departmental retreat, faculty supported the move from sequences to degree programs. The CM Advisory Board is also supportive of this change. The primary advantages of separate degree status for CM are listed below. An expanded rationale is included at the end of this document.
 - Increased degree recognition and program status for students (CM major and BS degree).
 - Increased recognition of program from employers hiring graduates (CM major and BS degree).
 - Improved program marketing through enhanced visibility to students and parents – listed as a major on ISU Homepage, which should attract a higher caliber student.
 - Increased program visibility should also improve faculty recruitment.
 - Enhanced “permanence” provided by degree status should improve corporate giving and fundraising options.
 - Preference of the American Council for Construction Education (ACCE) accreditation agency.
 - Increased curriculum flexibility for CM and IT majors as core courses could be decoupled. However, maintaining TEC instructional efficiency remains a priority.
 - Eliminate the double paperwork of dual accreditation without impacting the NAIT accreditation of the other TEC sequences. A separate major would require a separate program review, however this would be limited to an executive summary of the ACCE accreditation self-study.
 - Flexibility to provide outreach BS degree CM programs in Chicago area.
8. If for Teacher Education, include reference to CTE Conceptual Framework: n/a
9. Expected impact of proposal on existing campus programs: There are no programmatic changes associated with the move from a sequence to a major; hence there are not expected to be additional demands on existing campus programs
10. Expected curricular changes including new courses: There are no programmatic changes associated with the move from a sequence to a major.
11. Milner contacted to determine sufficient resources: n/a
12. Anticipated staffing arrangements: No staffing changes are required for this revision. Current faculty are teaching these courses. Consequently, there will not be any change in the teaching load for the faculty.
13. Anticipated funding needs and source of funds: No additional funds will be needed to support this proposal.
14. Complete and attach Financial Impact Form for New Programs: Attached
15. Letters of concurrence: n/a

CIP 52.2001 Construction Management (2000). A program that prepares individuals to manage, coordinate, and supervise the construction process from concept development through project completion on timely and economic bases. Includes instruction in commercial, residential, mechanical, highway/heavy civil, electrical, environmental, industrial, and specialty construction; facilities management; project planning; budgeting and cost control; logistics and materials management; personnel management and labor relations; site safety; construction contracting; construction processes and techniques; organization and scheduling; and applicable codes and regulations.

Background on the CM to BS Rationale

The program offerings in the Department of Technology have changed significantly since the early 1990s when the Department operated on a sequence model. At that time, the Industrial Technology major had a significant core and the sequence requirements were limited to about 24 – 28 semester hours. However major curriculum changes in 1996 reduced the IT core requirements and set the stage for sequences to move towards major status. The decision to move toward major-oriented programs of study was approved at a Department of Technology faculty retreat in September 2007. The purpose of this change was to establish a curriculum structure that would allow our disciplines to better serve students by maintaining contemporary offerings that were not constrained by the Department as a whole. Faculty prefaced the move toward multiple majors with explicit recognition of the need to maintain overall instructional efficiency.

Construction Management was the first sequence to enhance its offerings in order to comply with the American Council for Construction Education accreditation standards. Other disciplines soon followed suit. ISU defines a major as "a cohesive combination of courses, including introductory, intermediate, and advanced course work that designates a student's primary areas of specialization." This structure is now clearly the case in the Department of Technology and, with the exception of technology management related courses, there is very little, if any, topical crossover among the sequence areas. A look at the catalog requirements for TEC sequences reveals that they do indeed look more like majors than sequences. With the curriculum structure and independence of the disciplines, TEC has had de-facto majors for over 10-years.

The Department currently has three undergraduate majors, (a) Industrial Technology that comprises four sequences: Construction Management, Graphic Communications, Industrial Computer Systems, and Integrated Manufacturing Systems, (b) Renewable Energy, new in 2007, and (c) Technology Education. The Renewable Energy curriculum was established through a grant from the U.S. Department of Energy. The RE program was specifically established as a major to enhance visibility and attract industry support. With the advent of Renewable Energy as a standalone major, with no students initially, it has become apparent that the "major" model is the most functional model for curriculum flexibility, program marketing and recruitment, and development of alumni and industry support. Although this current proposal is for moving Construction Management to degree status, all of our existing sequences are investigating this eventuality. In summary, we have been converting our sequences to majors since the mid 1990s and have now developed in-depth specialty curriculums and the political will within the Department to operate as independent majors.

Another concern for the sequences housed under the degree name of "Industrial Technology" is program visibility. For example, when students explore major or career choices at ISU (Find a Major or First View), Construction Management is not easily located as it is an area of study (sequence) under Technology (which implies Information Technology to most of the world). Further, students are not likely to understand the term "Industrial Technology" when pursuing majors. Indeed our long-time professional organization and departmental accreditation agency, the National Association for Industrial Technology (NAIT), is in the process of changing its name because of the perceived archaic nature of industrial professions and lack of recognition by students, faculty, and oddly enough, the industries it serves. Instead of changing our degree name, the Department will eventually abandon it.