

New Graduate Program (Majors, Sequences, Certificates) Proposal Illinois State University - Graduate Curriculum Committee

Program Department Technology

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Submission Date Monday, October 29, 2012

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Version 2

Title of New Program STEM Education and Leadership Certificate

Proposed Starting Catalog Year 2013-2014

Associated Course Proposal(s):

New Graduate Course proposal TEC 423 titled *STEM Education Learning Theories*

New Graduate Course proposal TEC 424 titled *STEM Education Integrated Curriculum*

New Graduate Course proposal TEC 425 titled *STEM Education Leadership*

1. Proposed Action

New Major

New Sequence

✓ New Certificate

More than 50% of courses in this program are Distance Education

2. Provide Graduate Catalog copy for new program.

Graduate Certificate Programs

The department offers a graduate certificate in Project Management. This certificate requires successful completion with a grade of B or better in each of TEC 430, 431, and 432. Project Management is a rapidly growing field with numerous career opportunities in manufacturing, construction, printing and media development, industrial computer systems, and training industries. This certificate provides entry-level credentials appropriate for persons with technical expertise and substantial work experience. The content for these courses was identified through analysis of the Project Manager's Body of Knowledge developed by the Project Management Institute (PMI) organization and is consistent with those standards. This is not an advanced Project Management Professional (PMP) certification examination preparation program.

The department offers a graduate certificate in Training and Development. This certificate requires successful completion with a grade of B or better in each of TEC 406, 407, and 408. Training is a growing profession in industry but often does not require a graduate degree as credential for performing this important role. This certificate can allow the development of credentials and enhanced expertise for those attempting to become trainers in industry without the necessity of completing the degree. Course content was identified through analysis of American Society for Training and Development (ASTD) and International Board of Standards for Training, Performance and Instruction (IBSTPI) standards and recommendations and is consistent with those recommendations and standards.

The department offers a graduate certificate in STEM Education and Leadership. This certificate requires successful completion with a grade of B or better in each of TEC 423, 424, and 425. This certificate allows the Department of Technology to better serve classroom teachers seeking a STEM Education and Leadership credential, but may not be seeking a graduate degree. This certificate is not tied to teacher certification in the State of Illinois. Professionals completing this certificate would be better positioned within the school setting be experts in STEM-based decision making.

Courses completed as a portion of the Department of Technology Graduate Certificate programs may also be counted toward the requirements of the Master of Science in Technology degree. No transfer credit may be counted toward completion of certificates. Students must petition for certificate eligibility.

3. Provide a description for the proposed program.

The Department of Technology is proposing to replace its existing Technology Education MS Degree Sequence with a revised sequence titled STEM Education and Leadership (name change still in process). STEM is a widely used acronym for education and careers in science, technology, engineering and mathematics. The three course core from the proposed sequence: TEC 423, 423, and 425, would also be available as a graduate certificate. The Department expects this three-course sequence leading to a STEM Education and Leadership Certificate to be advantageous for practicing teachers seeking professional development in integrated STEM concepts and practices as well as those who may want to complete an entire MS Degree.

4. Provide a rationale of proposed program.

The Department of Technology expects this three-course sequence leading to a STEM Education and Leadership Certificate, to be advantageous for practicing teachers who may or may not want to complete an entire MS Degree. This certificate would allow a practicing teacher to apply these courses toward their MS Degree in STEM Education and Leadership or just complete the certificate. The Department of Technology expects this certificate to serve as a credential at the public school level, not an endorsement or a part of teacher certification. The certificate would showcase that the practicing teacher completed advanced coursework in STEM Education and Leadership and should be viewed with the school setting as an expert in the content area.

5. Describe the expected effects of the proposed program on existing campus programs (if applicable).

The Department of Technology expects this updated sequence and associated Certificate to better serve classroom teachers seeking advanced coursework in STEM Education and Leadership. We do not expect any negative effect on existing campus programs, especially given we are not seeking new courses. We have the faculty and capacity to adequately meet the needs of this program change.

6. Describe the expected curricular changes required, including new courses. If proposals for new courses that will be or have been submitted, please reference those related proposals here:

Delete current TEC 302 and replace with TEC 310.

Delete current TEC 420 and replace with TEC 423.

Delete current TEC 421 and replace with TEC 424.

Delete current TEC 422 and replace with TEC 425.

Create a three-course STEM Education and Leadership Certificate (TEC 423, TEC 424, and TEC 425).

7. Anticipated funding needs and source of funds.

No new funding needs are required. We are removing four existing courses and replacing them with four new courses.

8. Yes Does this program count for teacher education?

This program DOES NOT lead to teacher certification, but it was suggested that since this program has EDUCATION in the title, that "teacher education" and "teacher certification" be checked as yes. This sequence of courses are grounded in several of the Realizing the Democratic Ideals, which are the democratic conceptions of education of teacher education at Illinois State University. For example, under the ethical commitments, students enrolling in this sequence of courses would gain knowledge and skill in the (a) disposition to collaborate effectively with others; (b) high regard for learning and seriousness of personal, professional, and public purpose; and (c) respect for learners of all ages – please note here that learners of all ages based on Technology and Engineering Education encompasses students in 6-12 grades. As for the intellectual commitments, students enrolling in this sequence of courses would (a) gain a deep knowledge of content to be taught; (b) understanding of the factors that affect learning and appropriate teaching strategies; and (c) interest in and ability to seek out and use informational, technological, and collegial resources.

9. The following questions must be answered.

Yes Have letter(s) of concurrence from affected departments/schools been obtained?
A departments/school is affected if it has a program with significant overlap or if it teaches a required or elective course in the program.

10. Routing and action summary for New Graduate Program:

1. Technology Department Curriculum Committee Chair

<u>Jin Jo (website)</u>	<u>Jin Jo</u>	<u>10/12/2012 1:53:48 PM</u>
Signature	Print	Date

2. Technology Department Chair/School Director

<u>Richard Boser (website)</u>	<u>Richard Boser</u>	<u>10/12/2012 2:09:05 PM</u>
Signature	Print	Date

3. College of Applied Science and Technology College Curriculum Committee Chair

<u>Kevin Devine (website)</u>	<u>Kevin Devine</u>	<u>10/29/2012 9:07:33 AM</u>
Signature	Print	Date

4. College of Applied Science and Technology College Dean

<u>Todd McLoda (website)</u>	<u>Todd McLoda</u>	<u>10/29/2012 10:56:53 AM</u>
Signature	Print	Date

5. Council for Teacher Education Chair

<u>Perry Schoon (website)</u>	<u>Perry Schoon</u>	<u>1/16/2013 2:54:12 PM</u>
Signature	Print	Date

6. Graduate Curriculum Committee Chair

<u>Denise Wilson (website)</u>	<u>Denise Wilson</u>	<u>2/12/2013 10:12:32 AM</u>
Signature	Print	Date

7. Director of Graduate School

<u>Alberto Delgado (website)</u>	<u>Alberto Delgado</u>	<u>2/14/2013 3:37:06 PM</u>
Signature	Print	Date

All new graduate programs (majors, sequences, certificates) are routed by the G.C.C. to the Academic Senate