Indiana University Request for a New Certificate Program

Campus: Indiana University-Bloomington

Proposed Title of Certificate Program: Certificate in Instructional Systems Technology

Projected Date of Implementation: Fall 2003

I. TYPE OF CERTIFICATE:

REGULAR CERTIFICATES – These programs generally require one semester to one year of academic work. They are structured programs which utilize regular academic credit courses. This type of certificate program corresponds with the HEC's definition of certificate programs.

II. Why is this certificate needed? (Rationale)

The formal training and skills that a student gains in the field of Instructional Systems Technology can be applied across many settings (K-12, Higher Education, Business, Government or Military). Many of the current IST students left jobs in those fields to gain greater experience and skill by completing a Master's Degree or a PhD. However, there is a significant prospective student population that does not require a graduate degree for career advancement. In fact, an official certificate granted by an accredited institution will meet their educational needs. By enrolling in continuing education programs (such as a certificate in IST) these prospective students would gather and refine the skills and tools needed to advance their careers, fulfill work requirements for additional education and make greater contributions in their chosen careers. Finally, this certificate would create many additional Full-Time equivalents (FTE's) with minimal need for new resources. Being one of the top three programs across the nation in Instructional Technology, IST at IU is well positioned to offer a certificate program that meets these educational needs.

III. List the major topics and curriculum of the certificate.

This will be 15 credit certificate program following the structure of the current IST master's program which requires several core courses and electives.

The ***required courses*** for the certificate program will be:
IST R511: The theory and methodologies of IST
IST R561: The theory, methodologies and practices of evaluation and change management
IST R521: Introduction to instructional production

And *one* of the following production courses (based on prior production experience):
IST R541: Advanced instructional production
IST R547: Computer mediated instruction

The ***elective course*** for the certificate program will be drawn from other IST courses. Students must complete one elective from the following list:

IST Electives

IST R519: Instructional Writing
IST R541: Advanced instructional production (pre-req is R521)
IST R547: Computer mediated instruction
IST R625: Designing Instructional Systems
IST R626: Instructional Strategies and Tactics

IV. What are the admission requirements?

Admission requirements are:

- Undergraduate degree from accredited institution with a GPA minimum of 3.0 (Transcripts required)
- 2 letters of recommendations
- Goal statement
- Application ("Apply Yourself")
- No GRE
- TOEFL for international or non-native English speakers

V. List the major student outcomes (or set of performance based standards) for the proposed certificate.

There are several key student outcomes based on the courses proposed for this certificate. *Required Courses*: When students complete the required courses of this program they will be able to:

A. Discuss key elements of the instructional systems development process, including:

1. the rationale for using a systematic approach.
2. instructional development models and comparing/contrasting their emphases.
3. rationale and procedures for formative evaluation and revision.
4. approaches to successful implementation of the instruction or intervention.

B. Demonstrate competence in doing instructional systems development, specifically:

1. analyze performance problems to determine the need for instruction.
2. analyze necessary inputs (characteristics of learners, learning environments and learning tasks) in order to make good instructional design decisions.
3. specify appropriate objectives and measures for given learning tasks and learners.
4. select appropriate instructional strategies and formats.
5. design and develop course outlines and small lessons.
6. use effective message design in the creation of instructional materials.
7. produce quality instruction using a variety of media.
8. conduct formative and summative evaluations of instruction.
9. plan for effective implementation and organizational change.
10. use group-process skills to work productively in an ISD team.
11. use computers effectively in the ISD process.
12. show sensitivity to ethical issues and concerns.

C. Develop common understandings of the basic vocabulary and underlying principles of the field of IST. For example:

1. use basic terms with comprehension - differentiate among instructional technology (IT), performance technology (PT) instructional systems development (ISD), and other related concepts,
2. compare and contrast conceptual definitions and models of instructional design and performance analysis that have emerged over time, and
3. generate one's own working definitions of IT and PT.
4. gain an initial familiarity with major issues in the field in their historical context and as they are being debated in professional circles today. For example:
    - trace the evolution of major ideas over time - where appropriate, associate key people and organizations with their connection to these ideas,
    - characterize the contributions of theories of learning and instruction (such as behaviorist, cognitive, constructivist, and eclectic perspectives) to the development of IT, and
    - identify and discuss trends and issues that affect the field today.
5. create frameworks that are foundational to career development and lifelong professional development. For example:
    - identify key organizations and their roles in the IT and PT fields; begin to become involved in professional organizations,
    - begin to explore the variety of career paths available, and
    - grapple with ethical challenges that characterize the IT and PT fields.

D: Demonstrate competence in evaluation and change management within the field of IST. Specifically the students will be able to:

1. understand basic concepts and terminology associated with instructional and performance improvement evaluation.
2. explain the basic purposes and uses of evaluation within different instructional and performance improvement environments.
3. explain the role of evaluation within the instructional design and performance technology processes.
4. use qualitative and quantitative data gathering techniques in evaluation activities.
5. analyze and interpret evaluation data and information.
6. report the results of evaluation activities.
7. identify major steps required to implement change associated with an instructional or performance improvement process.
8. identify different individuals and groups in an organization that can impact planned change.
9. explain how different organizations might view change associated with instructional and performance improvement interventions and identify and use strategies for enhancing the successful implementation of the interventions

Elective Courses: Listed here are a few outcomes of some of the elective courses. Students will be able to:

A: be conversant with the basic assumptions, concepts, and principles of learning theories; determine the possible implications of each theory for instructional settings; create and revise their own theories of learning.

B. demonstrate proficiency in creating a homepage as well as converting graphics to Web formats, and uploading and downloading documents; become acquainted with various design principles and strategies of using computers to support instruction and learning, especially on the World Wide Web, through review of related literature; design and develop components of an instructionally sound Web site to support instruction and learning.

VI. Explain how student outcomes will be assessed (course-embedded assessments, graduate follow-up, employer survey, standardized tests, etc.).

All of the IST courses are project based, so student assessment is heavily driven by (1) course projects and (2) collaborative effort. Since these courses and the assessments for such courses have already been developed and put into place there is no need to recreate the assessment measures. We will also periodically conduct a follow-up survey with each student to gather information about their perspective on the program and what they have accomplished since finishing the program. This information will be used both to evaluate and revise (if necessary) the program and to market to potential new students.

VII. Describe student population to be served.

The strength of our proposed certificate program is in the student population that will be served. We will be able to draw upon students of all ages, from any location (since this can be done at a distance), and from diverse fields of experience. This program can serve the needs of IST or IST related professionals who need additional education for career advancement, for pleasure, or for additional training. This program is manageable at 15 credits, particularly for the student who works full time or who cannot go to school full-time. Our program will be flexible enough that the students can complete the program in 2 to 3 years depending on their needs and abilities. Additionally, students who take our certificate program can apply to the Masters or PhD programs in IST or elsewhere in the university and transfer most if not all of their certificate credits.

VIII. How does this certificate complement the campus or departmental mission?

Our certificate program will support the following institutional objectives for both IU and the IST department:

1. Strengthen the partnership with P-12 schools and communities.
    a. Students who attend this program will return to their P-12 schools and communities with more robust talent and skills
2. Enhance and expand the research and other scholarly and creative activities, and strengthen the quality of graduate programs.
    a. The increased number of online participants in distance classes will increase the amount of data we can gather and research about distance education

   b. Those certificate students who apply to IU programs such as the IST, Adult Ed. or Language Ed will be better prepared to succeed in these programs. Better students is a critical component of better graduate programs
3. Provide leadership in the appropriate use of technologies to enhance teaching and learning experiences.
   a. Since this certificate is in the field of Instructional Technology students will, of necessity, gain leadership in the appropriate use of technologies applied to teaching and learning
   b. The additional teaching, research and publishing opportunities this new program will offer to our faculty, Masters and PhD students will enhance the department's position of leadership in the field of IST
4. Promote diversity.
   a. Students can complete the program both onsite or at a distance, thus we expect to draw upon students of all ages and diverse backgrounds to complete this certificate program. This will add a useful component of diversity to our program.

IX. Describe any relationship to existing programs within Indiana University.

This certificate program will have a close relationship with the IST Masters program. Any one who finishes the certificate program is well positioned to apply to the Masters program and complete that degree. Additionally, linkages between IUPUI's Adult Education program and IUB's Language Education program are currently being developed giving the students a wider range of elective options so that they might specialize their interests.

X. List and indicate the resources required to implement the proposed program. Indicate sources (e.g., reallocations or any new resources such as personnel, library holdings, equipment, etc.).

Most of the resources required to run the IST certificate program are already in place; in other words, since it follows the format of our Masters degree few new resources are required and reallocations will be minimal. The following resources will be required: funding for the faculty who teach (whether full-time faculty, adjunct or student teachers); teacher training for online formats, particularly for student teachers. We also need to adapt to a certificate focus the current online application form for the IST Masters degree.

XI. Describe any innovative features of the program (e.g., involvement with local or regional agencies, or offices, cooperative efforts with other institutions, etc.).

The most innovative feature of this program is the project based nature of the courses which allows students the collaborative opportunity to solve real world problems with the theories and concepts of IST. Another innovative feature of this certificate program is that we are making greater linkages with corporations and school districts by serving their workers who come to study with us.