

Indiana University

Request for a New Credit Certificate Program

Campus: Bloomington

Proposed Title of Certificate Program: Graduate Certificate in Institutional Research

Projected Date of Implementation: Fall 2013

TYPE OF CERTIFICATE: (check one)

UNDERGRADUATE CERTIFICATES – These programs generally require 12-29 credits of undergraduate-level academic work.

GRADUATE CERTIFICATES – These programs generally require 12-29 credits of graduate-level academic work or undergraduate academic work carrying graduate credit.

POST-BACCALAUREATE CERTIFICATES – These programs generally require 12-29 credits of undergraduate-level academic work, although students enrolling in these programs must have completed their baccalaureate degrees.

I. Why is this certificate needed? (Rationale)

This proposal requests a substantive change in the IU Post-Master's Certificate in Institutional Research program that was approved by the IU Board of Trustees in August 2002. Specifically, we seek to:

- 1) Alter the curriculum of the program based on assessment results, changes made to available courses from the Department of Educational Leadership and Policy Studies' (ELPS) Higher Education and Student Affairs (HESA) program, changes in the funding structure for the program and alignment with similar programs at other research universities;
- 2) Enable students from outside the School of Education's Educational Leadership and Policy Studies doctoral programs to participate in the program, including appropriately credentialed non-degree students who meet admissions requirements; and
- 3) Expand eligibility for participation to master's level and graduate, non-degree students by expanding course options, changing admission requirements and changing the title of the certificate to be listed as a Graduate Certificate in Institutional Research.

Graduate Certificate in Institutional Research Proposal

Institutional researchers help campus leaders respond to the demands of today's higher education dynamic environment and the increasing demand for accountability and improvement. This has continued to reinforce the need to utilize their high level of technical skills and competences in such areas as research design, statistics, information technology, and data management. Over the years, other professionals in the field of higher education have found an increasing need to also obtain these skills and competences. The Association for Institutional Research describes this growth in institutional research by acknowledging how the "demand for foundation skills comes from the increasing distribution of the IR function across our colleges and universities"

(<http://www3.airweb.org/page.asp?page=499>). As the field of institutional research advances and expands, it continues to help higher education institutions in the U.S. and internationally face the issues that affect their educational, support, and ancillary functions.

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

The approved certificate program was developed as part of a federally funded (National Science Foundation and National Center for Education Statistics) initiative to develop prototypes for such programs. Indiana University was one of five institutions to receive this funding through a competitive peer review process in 2001. The six-year grant included planning monies (year 1) as well as support for students participating in the program for five years of operation (Academic Years 2002-03 through 2006-07). The funding supported specific aspects of the program (e.g., guaranteed student participation in a summer National Data and Policy Institute), which was no longer guaranteed and became a highly competitive process after the grant's expiration (making it unfeasible as a program requirement). Two graduate level courses were newly designed that focused on institutional research and have been offered regularly since 2010-2011., With the new courses now offered regularly, we seek to reconfigure the graduate certificate in institutional research as a sustainable program that is not dependent on grant funding and that is aligned with student demand and with current course offerings in the HESA program.

The intended learning outcomes of the original program remain as the core objectives of the re-formulated design. Specifically, the program is intended to provide students with...

- Foundational knowledge about the institutional research profession and the practice of institutional research within higher education institutions;
- A broad, integrative understanding of the external and internal contexts and cultures within which higher education institutions use institutional research to plan, evaluation and improve higher education institutions as well as component programs and services;
- Broad knowledge about the core management functions of higher education institutions, (e.g., academic program administration, enrollment management, institutional management and resource allocation, governance, student affairs, higher education policy and finance, and institutional advancement), with more in-depth knowledge of at least one of these areas; and
- The ability to adapt, reformulate and employ the principal concepts and methods of institutional research in multiple applied research projects.

Graduate Certificate in Institutional Research Proposal

Toward these ends, the original, approved curriculum included:

- Six one-credit, web-based modules (offered as EDUC-U 550) designed to advance students' technical skills, including: Desktop Technologies and Tools for Institutional Research; Institutional Research Web Applications; Application of Basic Statistical Concepts to Institutional Research Problems, Activities, and Issues; Data Administration, Warehousing, and Mining from the IR Perspective; Survey Research Applications in Institutional Research; Application of Intermediate Statistical Concepts in Institutional Research (6 cr.)
- A one credit pro-seminar (offered as EDUC-C 790) designed to allow participants to reflect upon experiences in their funded assistantships in relation to their coursework and the objectives of the certificate program (1 cr.)
- (EDUC-Y 502) –Intermediate Statistics Applied to Education (with lab) (3 cr.)
- (EDUC-C 665) – Higher Education Administration (3 cr.)
- One elective course chosen from the doctoral curriculum of the Higher Education and Student Affairs program or other relevant doctoral programs if approved by the program advisor. (3 cr.)
- Required attendance of a national data and policy institute (space for which was reserved by the Association for Institutional Research, which administered the federal grant as well as the summer institute) and development of an electronic portfolio as a capstone product (4 cr.)

The certificate program thus required 16 credit hours of course work and 4 credit hours of field experience.

Reasons for Changes

As noted above, the original program received federal funds and related resources for the first five years (2002-2007). In addition, there have been several changes to the HESA curriculum, for example the merging of courses formerly offered as EDUC-C 665 (a program requirement) and EDUC-C664 (an available elective) into a single course, now offered as EDUC-C664. Through assessment and evaluation, the six one-credit modules were found to focus too narrowly on specific technical skills and not enough on the context and rationale for using those techniques. . Discussion with faculty throughout the country involved in the other nationally funded programs (at Penn State University, Arizona State University, Florida State University and the University of Missouri), provided useful insights into successful elements of program and course level design, as well as the overall requirements.

Proposed Curriculum Changes

We propose to alter the post-master's certificate in institutional research curriculum in the following ways:

- Replace the six one-credit web modules and required attendance at the National Data and Policy Institute with two three-credit courses:

Graduate Certificate in Institutional Research Proposal

- **Foundations of Institutional Research (EDUC-C 661).** A survey of the literature and professional practice of institutional research focusing on six topical areas: the role, function and organization of IR; IR data management and administration; reporting practices; enrollment and resource management; student and faculty research; and institutional effectiveness.
- **Capstone in Institutional Research (EDUC C678).** A project-based course that provides in-depth exposure to the kinds of analyses typically conducted by institutional research practitioners, including enrollment modeling; student engagement and retention; faculty and departmental productivity; support program evaluation; academic program review and assessment; and peer institution identification and analysis. Students can choose to focus on a single topic and develop a multi-stage project which can then satisfy the Early Inquiry requirement of the HESA Ph.D. program. This course has been offered as a topical seminar (EDUC -C750/U550). A new course request is currently under review for this course.

Reconfiguring the six one-credit modules into these two courses incorporates the integrative and reflective components deemed to be missing from the modules. It also encompasses the in-depth exposure to common data sets and policy analyses that were covered in the National Data and Policy Institute as well as the capstone electronic portfolio required in the original curriculum

- Replace the EDUC-C 665 requirement with the reconfigured EDUC-C 664 class (Higher Education Organization and Administration) and add EDUC-U 565 (Introduction to College and University Administration) as an alternative choice.
- Replace the 4-credits associated with attendance at the National Data Policy Institute and electronic portfolio with a 3-credit elective course. chosen from among those regularly offered by the HESA program.
- Elective courses have been updated to include both doctoral and master's level HESA courses.

The requirement for the Y502/Y500 (Intermediate Statistics Applied to Education (with lab) remains unchanged.

With these changes, the graduate certificate for institutional research would entail 19 total credit hours of course work with no required field experience as compared to the prior requirements of 16 cred hours of course work and 4 hours of field experience. Although field experience is removed as a specified requirement (due in part to the unavailability of the National Data and Policy Institute), both the foundations and capstone courses integrate students' field work into the course.

Curriculum for the Certificate in Institutional Research

Course	Description	Credits
EDUC-C 661	Foundations of Institutional Research	3

Graduate Certificate in Institutional Research Proposal

EDUC-C 565 or EDUC-C 664	Introduction to College and University Administration Higher Education Organization and Administration	3
EDUC-Y502/Y500	Intermediate Statistics Applied to Education	4
Two Electives from HESA offerings or other course agreed upon between student and advisor	Recommended Elective Courses: U548 – Student Development Theory and Research U549 – Environmental Theory U580 – Issues and Problems in Higher Education and Student Affairs Administration C654 – History of Higher Education C670 – Problems in Financing Higher Education C655 – Higher Education and Public Policy C695 – Academic Problems in Higher Education C750 – Special Topics	6
C678	Capstone Course in Institutional Research	3
Total		19

The graduate certificate, like its predecessor the post-master's certificate, is designed to enable individuals with prior relevant administrative experience to move into leadership roles in institutional research (e.g., director, assistant vice president, etc.) or to enable those without such experience to enter the field at the intermediate level (e.g., assistant director or senior analyst). The proposed changes enable the certificate to accommodate demand and interest among individuals without master's degrees to pursue entry level institutional research positions, as well as early career IR professionals seeking career development experiences. Advisors will assist students in selecting the courses that match their capabilities and interests along this continuum.

III. What are the admission requirements?

Admission requirements are based on the School of Education's Graduate Studies Office Admissions Criteria.

Criteria	Description
Prior Degree	A baccalaureate (bachelor's) degree.
Prior Grades	Undergraduate grade-point average of 3.00 or higher in the last 60 credit hours or, for students entering with a master's degree, graduate grade-point average of 3.30 or higher in all courses taken
GRE Scores	Students with less than three years of experience working in higher education management or administration positions must submit GRE scores. Applicants should have a combined score of 302 or better in the verbal and quantitative sections (or 1100 or better for tests taken prior to August 1, 2011), with a score of 3.5 or better

Graduate Certificate in Institutional Research Proposal

	<p>in the analytical writing section.</p> <p>In lieu of GRE scores, applicants with at least three years of experience working in a relevant higher education management or administration position must provide a resume and include at least one letter of recommendation from an employer supporting the individual's capabilities for pursuing this certificate.</p>
Letters of recommendation	At least two. Having one letter from a professor or instructor familiar with the applicant's academic and intellectual skills and one letter from an employer supporting the individual's abilities and interests in pursuing this certificate is preferred (the latter being required for students with at least three years of relevant work experience who are not submitting GRE scores).
International Students	In addition to the general application requirements, international applicants whose primary and secondary schooling was not in English must submit recent scores on the Test of English as a Foreign Language (TOEFL). The TOEFL must have been taken within two years prior to application. A minimum TOEFL score of 550 for the written version, 213 for the computer-based version, or 79 for the Internet-based version is ordinarily required for admission to graduate programs.
Other provisions	<p>The applicant's personal goal statement must specify academic and career goals compatible with the training goals of the program.</p> <p>Admission to the program is subject to availability of space. The number of students already in a program, and the number of new applicants all affect selection ratios in a given year.</p>

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

Technical and Foundational Core - Demonstrates fluency in the use of tools, technologies, and methods common to the field, including: statistical analysis (descriptive techniques and basic inferential skills such as testing for group differences and ordinary least squares regression); applied research design; data extraction and database management; advanced spreadsheet functions; and report layout and presentation preparation.

Interaction between Environment & Campus – Articulate the impact of governmental (federal and state) and regulatory agency policy and practices on higher education institutions, as well as major societal issues and demographic trends that affect higher education institutional resources, operations and accountability.

Student Access, Engagement & Achievement – Integrate the conceptual and empirical literatures on student access, affordability, choice, enrollment management, engagement, and student development so as to appropriately define research questions and execute analyses that inform administrative decision-making.

Graduate Certificate in Institutional Research Proposal

Faculty Engagement, Activity & Culture – Integrate the conceptual and empirical literatures on faculty activity, governance, and academic culture so as to appropriately define research questions and execute analyses that inform administrative decision-making.

Institutional Management – Appropriately describe and accommodate in management analyses the variety of organizational structures, functions, and processes of higher education institutions and systems.

Program Evaluation and Outcomes Assessment – Conduct appropriate and informative assessments of support programs and assist faculty and staff in designing assessments of student learning and achievement in courses and programs.

Curriculum-Learning Outcome Map

	Foundations of IR (C661)	Statistics (Y502/500)	HE Adm/ Org (C664/C565)	Electives	Capstone (C678)
Technical and Foundational Core	X	X			X
Interaction between Environment & Campus	X		X	*	+
Student Access, Engagement & Achievement	X			*	+
Faculty Engagement, Activity & Culture	X		X	*	+
Institutional Management	X		X	*	+
Program Evaluation and Outcomes Assessment	X	X		*	+

*Depending on chosen elective

+Depending on project selections

- V. Explain how student learning outcomes will be assessed (student portfolios, graduate follow up, employer survey, standardized test, etc.) and describe the structure/process for reviewing assessment findings for the purpose of ensuring continuous improvement of the certificate.

The program employs a set of integrated assignments across the Foundations and Capstone courses that generate a set of products to be included in the capstone portfolio (along with other relevant assignments produced in relevant courses and in work settings:

Foundations Course Student Products

- **Data Visualization** – Students are provided a raw data set with enrollment counts by race/ethnicity, institutional sector and year for all U.S. institutions of higher education. They are required to use Excel Pivot Tables to create a summary table and also create a graphical display. The final product is a single page document that illustrates the data and provides a brief but coherent finding related to the change in racial/ethnic distribution across sector in U.S. postsecondary institutions
- **Collaborative Book Review** – Teams of 2 students select a monograph from among of “Resources in Institutional Research” series published by the Association for Institutional Research and collaboratively produce a review following a provided template
- **Term Project** – Students develop a “Research Brief” targeted for a designated audience (e.g., student affairs managers; academic deans, senior institutional leadership; a specific administrative committee; a state higher education systems office; etc.). The brief is required to be 3-5 pages in final published form (Equivalent of a 6 to 8 page double-spaced paper depending on the number of tables and charts). The analysis must include at least one tabular display of data and at least one graphical display of data.

Capstone Course Student Products

Students complete three projects and produce an electronic portfolio that documents how their skills and knowledge related to the practice of institutional researcher have developed through the two IR courses and other courses and applied research experiences.

Students can choose between two general approaches for developing their course project plan:

1. Select three different topics to gain breadth of experience with different common institutional research topics
2. Pursue a single topic through three related stages, resulting in a more in-depth inquiry that can be used to fulfill the HESA doctoral program early inquiry requirement

Regardless of which approach is used, the three projects must employ at least three of the four following methodologies:

- Selecting or developing an evaluation instrument either by...
 - creating a scenario in which an academic department or administrative program is looking for an existing instrument to use for assessment purposes and prepare a critical analysis of potentially relevant instruments; or
 - developing a survey or focus group protocol to serve a specific (fictitious or real) assessment purpose. Include an interview of the “client” to assess their needs

A 6 to 12 page (double-spaced) report that describes the scenario or client interview results, major issues and themes from related literature, describes instruments used as a basis or that

Graduate Certificate in Institutional Research Proposal

were critiqued, and provides either the resulting survey and recommended protocols for its use, or summarizes the benefits and drawbacks of reviewed instruments and recommendations for how to get about making a final choice.

- Secondary research for a policy brief - Students prepare a briefing for a specific audience on a specific policy topic that is based on a review of relevant studies and writings. The briefing will be no long than 8 pages, double-spaced, and include an executive summary (100-300 words) and an appendix listing the links and resources that were used develop the briefing.
- Primary research employing student, faculty or staff unit-record data - Students conduct an analysis that employs unit-record data they obtain themselves (e.g., through their employment or assistantship) or that is provided by the instructor. The analysis must employ at least some basic inferential statistics (e.g., t-tests, chi-square or correlations) although an applied regression analysis is generally recommended. The product must be a 3 to 5 page single spaced and nicely formatted "Research Brief." The brief can include some appendix tables as appropriate, but no too many (e.g., no more than 4 to 6 such tables).
- Primary research employing institutional unit-record data - Students draw upon data from an extant source, such as the National Center for Education Statistics, the U.S. Census Bureau, or a statewide higher education agency to conduct an analysis. They produce an 8 to 10 page (double spaced) report that describes the rationale for selecting the method and variables, presents the results, and discussing the uses and limitations of those results.

The IR Capstone Portfolio

Students create an electronic portfolio of their work in the two IR courses, as well as relevant assignments from other courses and their work settings with the following outline as suggested guideline:

- I. Introduction - A brief statement of 'where you were coming from,' including
 - a. Academic background
 - b. Employment background
 - c. Interests and career aspirations
- II. Knowledge, Skills, and Abilities

Reflective statements regarding what you've learned as illustrated through samples of your work. You do not have to be exhaustive and may use the same assignment or project to illustrate several points. The work should illustrate the knowledge, skills, and abilities reflected in the following outline

Graduate Certificate in Institutional Research Proposal

- a. Foundations of higher education administration - Work that demonstrates your command of concepts regarding the political and operational contexts of higher education institutions and systems.
 - b. Core technologies and methodologies
 - i. IR Technologies (for data analysis, report writing, presentations, web design, etc.)
 - ii. Information management
 - iii. Research methods (such as surveys, evaluation design, statistical methods, etc.)
 - c. Areas of more specific interest - Illustrate your particular areas of interest and emphasis as manifest in the topics you've chosen for your class projects as well as through your other classes, employment, internships, assistantship, etc.
 - d. The 'real world' of educational administration - Work and reflections that demonstrate your understanding of how what you've learned 'plays out' in authentic settings. This should include examples from your employment, internship or assistantships and can also reference the Summer Data Policy Institute assignment (if attended), and experiences from the Foundations class (e.g., visits from practitioners).
- III. Concluding summary - A succinct summary of your growth and development in the program with explicit reference to how the program has influenced your interests and career path and how you see yourself contributing to the advancement of the IR profession (see figure 2 in the attached document)
- VI. Describe student population to be served.
- The certificate is designed to serve a range of students including
- Individuals with prior relevant administrative experience and at least a master's degree seeking to move into leadership roles in institutional research (e.g., director, assistant vice president, etc.). This would include currently enrolled HESA doctoral students with an appropriate background as well as individuals currently employed in IR-related jobs having at least a master's degree (enrolled as graduate, non-degree students);
 - Individuals with a master's degree or higher and no directly relevant experience seeking to enter the field at the intermediate level (e.g., assistant director or senior analyst). This would include current doctoral students in HESA, Ed Policy, and other related School of Education doctoral programs.
 - Individuals without master's degrees who would like to pursue entry-level institutional research positions, including currently enrolled master's students in HESA and related programs; and
 - Early career IR professionals seeking career development experiences who would enroll as graduate, non-degree students.

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

Indiana Universities Higher Education and Student Affairs (HESA) program has always featured an emphasis on program evaluation, institutional research and assessment. This emphasis has been buttressed in recent years by the addition to the core faculty of Victor Borden (the certificate program coordinator) and Gary Pike. Indeed, IU's HESA program boasts the most winners (4, George Kuh, Trudy Banta, Don Hossler, and Gary Pike) of the top research award of the Association for Institutional Research, the Sydney Suslow Award, as well as former AIR president and Outstanding Service award winner, Victor Borden. The program also fits well with the IU Center for Postsecondary Research focus and activities, including its signature program, the National Survey of Student Engagement (NSSE). Finally, the program integrates the strengths of the HESA program with other program areas in Educational Leadership and Policy Studies: Education Policy Studies; Educational Leadership; and History, Philosophy & Comparative Education.

VIII. Describe any relationship to existing programs on the campus or within the university.

As noted, the IR certificate program is closely aligned with the HESA master's and doctoral programs. Two of the program requirements (EDUC-C 664 and EDUC-Y 502) are required components of the doctoral major curriculum and the electives can also satisfy major requirements. One (EDUC-C 565) is a requirement for the HESA master's program. Moreover, the IR Foundations course can be counted as fulfilling a major requirement and the Capstone course can be used to fulfill the early inquiry requirement for doctoral students. Master's students must additionally take the intermediate statistics course (EDUC-Y 502).

The re-configured certificate program, like its predecessor, can provide valuable support to graduate students from a broad variety of programs who have assistantship assignments in academic and administrative offices at either IUB or IUPUI. Students in the program will typically choose projects that pertain to their assistantships or work assignments, which, in turn fosters further support from those offices and demand among other staff in those offices for the program's courses.

IX. 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.).

The courses for this program already exist within the catalogue. No additional human resources are needed.

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

The Association for Institutional Research (AIR) provides support to legitimate academic programs in the field through its web site and publications (see, for example, <http://www.airweb.org/Careers/GraduateEducation/Pages/default.aspx>). In addition, representatives

Graduate Certificate in Institutional Research Proposal

of such programs are provided opportunities to present poster sessions and convene interest groups at the annual national forum. The Indiana institutional research network (INAIR) also provides such academic programs an opportunity to display information and talk to interested parties at its annual conference.

INDIANA UNIVERSITY, SCHOOL OF EDUCATION

Educational Leadership & Policy Studies

Program of Study: Graduate Certificate in Institutional Research (GCIR)

Name: Student ID#:

Address:

E-mail: Phone:

The GCIR Program consists of 19 hours. The certificate sequence officially starts by taking Foundations of Institutional Research (C661) in the Spring Semester and concludes with the Capstone Course (C678) taken in the Fall Semester. Students may complete other requirements of the program before taking the foundations course. However, students should complete all other requirements before completing the capstone course (other requirements can be taken and completed concurrently with the capstone)

HESA doctoral students can apply GCIR course credits to their doctoral program of study. HESA master's level students can apply three courses from their program to the GCIR certificate – C565 and any two of U548, U549 or U580 as electives, but must take three courses in addition to the master's program of study C661, Y502/500 and C678 (Capstone). Students from other programs should consult with their program advisors regarding the eligibility of GCIR courses toward their major programs.

<u>Course #</u>	<u>Title</u>	<u>Hrs</u>	<u>Semester</u>	<u>Year</u>	<u>Grade</u>
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I. CORE COURSES (10 hours)

EDUC-C661	Foundations of Institutional Research	3			
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EDUC-Y520/500	Intermediate Statistics Applied to Education	4			
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EDUC-C678	Capstone in Institutional Research	3			
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II. Higher Education Administration and Organization (3 hours)

Select one course

EDUC-U565	Introduction to College and University Administration				
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OR

EDUC-C664	Higher Education Organization and Administration				
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III. ELECTIVES (6 hours)

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Total Hours (19 Required)

Student Signature

Date

GCIR Program Director Signature

Date

PLEASE NOTE: See School of Education Graduate Bulletin for details and a complete description of policies and procedures regarding admission, retention and graduation requirements.

1. Coursework toward the Graduate Certificate in Institutional Research must be completed within 7 years.
2. A cumulative GPA of 3.00 must be maintained in all work. No grade lower than a C may count toward graduate requirements.