

**GENERAL POLICY REPORT #32**  
**September 23, 2005**

The item listed below will be considered to have the necessary faculty approval unless a petition requesting further consideration of it is signed by five faculty members and submitted to the chair of the Faculty Council within 14 calendar days after the September 23, 2005, date of circulation. As a rule, if no petition is received within 14 days or by October 7, 2005, the report will be submitted to the president for approval and transmittal to the regents, if regents' action is required. If a petition is received, the report will be referred to the Faculty Council. On items referred to it, the council may: (1) affirm the action and report it to a meeting of the university faculty, (2) amend the action and report it to a meeting of the university faculty, or (3) rescind the action.

*The following item is presented in the policy report that begins immediately below:*

1. **FC-06-001:** NOI: Six Sigma Innovation and Design Certificate

## Six Sigma Innovation & Design Certificate

Six Sigma can be regarded as a highly structured strategy for acquiring, assessing and applying customer, competitor, and enterprise intelligence for the purposes of achieving superior innovations in or design of products, processes, or systems. This certificate program is highly integrative and emphasizes the dominant tools and strategies employed in both innovation and design applications of Six Sigma. Program content is consistent with the generally acknowledged body of knowledge associated with highly coveted Six Sigma Black Belt Certification and addresses Six Sigma’s DMAIC (Define-Measure-Analyze-Improve-Control) and DFSS (Design for Six Sigma) approaches to innovation and design in depth with other key program elements including Project Management and Lean Manufacturing / Lean Enterprise. Elective courses listed are intended to accommodate the applications and intersections of Six Sigma with business, engineering, and other environments.

### Course Selection

**THE SIX SIGMA INNOVATION & DESIGN CERTIFICATE CONSISTS OF 12 CREDITS SELECTED FROM THE FOLLOWING LIST BELOW. GRADUATE (500-LEVEL) COURSES MAY REQUIRE ADDITIONAL PREREQUISITES OR PERMISSION FROM THE INSTRUCTOR PRIOR TO REGISTRATION; AND SOME COURSES MAY REQUIRE USE OF MINITAB SOFTWARE. IN ADDITION, DR. EDGEMAN RECOMMENDS STUDENTS SUCCESSFULLY COMPLETE STAT 401 STATISTICAL ANALYSIS, PRIOR TO STARTING THE CERTIFICATE. REFER TO THE UNIVERSITY OF IDAHO GENERAL CATALOG AT [HTTP://WWW.STUDENTS.UIDAHO.EDU/CATALOGS](http://www.students.uidaho.edu/catalogs) FOR COURSE DESCRIPTIONS AND PREREQUISITE REQUIREMENTS. STUDENTS MUST EARN A GRADE OF “B” OR BETTER IN EACH CLASS TO QUALIFY FOR THE CERTIFICATE. IF YOU ARE CONSIDERING THIS CERTIFICATE, CONTACT THE COORDINATOR PRIOR TO REGISTRATION.**

Required Courses (9 credits)		Credits
BUS 531	Managing the Design Process	3
STAT 507	Experimental Design	3
Special Topics	<i>As approved by Dr. Edgeman</i>	3
*Electives (3 credits)		Credits
<b>Choose one or more of the following courses:</b>		
BUS 414	Entrepreneurship	3
BUS 456	Quality Management	3
ME 583 / CE 541	Reliability of Engineering Systems	3
*Other electives	<i>As approved by Dr. Edgeman</i>	3

### Admission

Students working toward a certificate must be admitted to the University of Idaho as either a nondegree, undergraduate, or graduate student and **must have a sufficient background in statistics as determined by the certificate coordinator**. Undergraduate and non-degree students must meet the minimum GPA admission requirement of 2.8 or higher in an undergraduate degree program to enroll in 500-level courses for this certificate. Undergraduates must also have senior standing.

### Graduate Students

With graduate committee approval, certificate courses may be included in a graduate study plan; and up to 12 approved certificate course credits taken as a nondegree student may be transferred into a graduate program.

### Nondegree and Undergraduate Students

Nondegree and undergraduate students can enhance their knowledge in Six Sigma Innovation and Design without seeking a graduate degree, and simultaneously build a strong foundation for a master’s degree at a future date. Nondegree students who do not plan to work toward a degree at the University of Idaho, must earn all certificate course credits from the University of Idaho.

### Transfer Credits

Graduate and undergraduate students who wish to apply approved transfer credits from another university toward this certificate may include *up to three* applicable credits as determined by the certificate coordinator.

**Coordinator** Rick L. Edgeman, Six Sigma Black Belt / Professor & Chair  
 Department of Statistics  
 Phone: (208) 885-4410  
 E-mail: [redgeman@uidaho.edu](mailto:redgeman@uidaho.edu)

Signed by Rick Edgeman  
 Approved by certificate coordinator

**IDAHO STATE BOARD OF EDUCATION  
ACADEMIC/PROFESSIONAL-TECHNICAL EDUCATION  
NOTICE OF INTENT  
To initiate a**

NEW, EXPANDED, COOPERATIVE, DISCONTINUED, PROGRAM COMPONENT OR OFF-CAMPUS INSTRUCTIONAL PROGRAM OR INSTRUCTIONAL/RESEARCH UNIT

Institution Submitting Proposal: UNIVERSITY OF IDAHO  
 Name of College, School, or Division: Interdisciplinary certificate: College of Science, College of Business, College of Engineering  
 Name of Department(s) or Area(s): Department of Statistics

Indicate if this Notice of Intent (NOI) is for an Academic or Professional – Technical Program

Academic  X  Professional - Technical \_\_\_\_\_

A New, Expanded, Cooperative, Contract, or Off-Campus Instructional Program or Administrative/Research Unit (circle one) leading to:

Six Sigma Innovation & Design Certificate  
(degree or certificate)

Proposed Starting Date: Fall 2005

**For New Programs:**

**For Other Activity:**

\_\_\_\_\_  
Program (i.e., degree) Title & CIP 2000

- Program Component (major/minor/option/emphasis)
- Off-Campus Activity/Resident Center
- Instructional/Research Unit
- Addition/Expansion
- Discontinuance/consolidation
- Contract Program
- Other

Approved by college dean 2/22/05      Approved by COG  
 College of Science Dean (Institution)      Date  
Approved by college dean      2/22/05  
 College Business Dean (Institution)      Date  
Approved by college dean      2/16/05  
 College Engineering Dean (Institution)      Date  
Approved by fiscal officer      3/1/05  
 Chief Fiscal Officer (Institution)      Date  
 \_\_\_\_\_  
 Chief Academic Officer (Institution)      Date  
 \_\_\_\_\_  
 President      Date

6/8/05  
 \_\_\_\_\_  
 VP Research & Graduate Studies      Date  
 \_\_\_\_\_  
 State Administrator, SDPTE      Date  
 \_\_\_\_\_  
 Chief Academic Officer, OSBE      Date  
 \_\_\_\_\_  
 SBOE/OSBE Approval      Date

**Before completing this form, refer to the "Board Policy Section III.G. Program Approval and Discontinuance.**

- Briefly describe the nature of the request e.g., is this a new program (degree, program, or certificate) or program component (e.g., new, discontinued, modified, addition to an existing program or option).

*The courses in this sequence are part of the SBOE-approved programs in Statistics, Engineering, and Business and Economics.*

- Provide a statement of need for program or a program modification. Include student and state need, demand, and employment potential. **Attach a Scope and Sequence, SDPTE Form Attachment B, for professional-technical education requests.** (Use additional sheets if necessary.).

*Six Sigma Innovation & Design strategies are integral to the way that an increasing number of organizations do business and have, in fact, become an integral part of company culture. Use of Six Sigma approaches to organizational prosperity spans healthcare, manufacturing, financial and numerous other sectors, public and private alike.*

*Among leading companies embracing Six Sigma are Boeing, GE, DuPont, 3M, IKON, Raytheon, Deloitte & Touche, Lockheed-Martin, Rolls Royce, and many others. Organizations with significant regional presence that have embraced Six Sigma include Micron Technologies, Hewlett-Packard, and Schweitzer Engineering.*

*Indeed, Six Sigma strategies and methods can be used to improve business performance essentially irrespective of business sector or size of organization with many of the previously cited companies requiring Six Sigma training for all employees. Demand for Six Sigma expertise is easily documented, with searches at such websites as www.monster.com and www.careerbuilder.com generally posting more than 2,000 Six Sigma positions at any given time.*

3. Briefly describe how the institution will ensure the quality of the program (e.g., accreditation, professional societies, licensing boards, etc.).

*Courses are currently being offered and meet SBOE requirements, and the requirements of the Colleges of Science, Engineering, and Business and Economics.*

4. Identify similar programs offered within the state of Idaho or in the region by other colleges/universities. If the proposed request is similar to another program, provide a rationale for the duplication.

*No other known Six Sigma-related certificate programs exist in the state or region at this time.*

5. Describe how this request is consistent with the State Board of Education's policy or role and mission of the institution. (i.e., centrality).

*These certificate courses will be delivered through a combination of "live" instruction and Web-supported DVD media through Engineering Outreach. This "hybrid" approach will meet the needs of outreach students seeking coursework in the focus area of Six Sigma Innovation and Design.*

6. Is the proposed program in the 8-year Plan? Indicate below.

Yes   x   No       

If not, provide a justification for adding the program.

7. Resources--Faculty/Staff/Space Needs/Capital Outlay. (Use additional sheets if necessary.):

Estimated Fiscal Impact	FY <u>  *N/A  </u>	FY <u>  *N/A  </u>	FY <u>  *N/A  </u>	Total
<b>* No additional resources are required or requested.</b>				
<b>A. Source of Funds</b>				
1. Appropriated-reallocation	_____	_____	_____	_____
2. Appropriated – New	_____	_____	_____	_____
3. Federal	_____	_____	_____	_____
4. Other:	_____	_____	_____	_____
<b>TOTAL:</b>	_____	_____	_____	_____
<b>B. Nature of Funds</b>				
1. Recurring *	_____	_____	_____	_____
2. Non-recurring **	_____	_____	_____	_____
<b>TOTAL:</b>	_____	_____	_____	_____

\* Recurring is defined as ongoing operating budget for the program, which will become of the base.

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