

Cover/Signature Page - Abbreviated Template/Abbreviated Template with Curriculum

Institution Submitting Request: University of Utah
 Proposed Title: Statistical Analysis Emphasis for Economics BA/BS
 Currently Approved Title:
 School or Division or Location: College of Social and Behavioral Science
 Department(s) or Area(s) Location: Economics
 Recommended Classification of Instructional Programs (CIP) Code¹ (for new programs):
 Current Classification of Instructional Programs (CIP) Code (for existing programs): 45.0601
 Proposed Beginning Date (for new programs): 08/25/2015
 Institutional Board of Trustees' Approval Date: MM/DD/YEAR

Proposal Type (check all that apply):

Regents' General Consent Calendar Items		
<i>R401-5 OCHE Review and Recommendation; Approval on General Consent Calendar</i>		
SECTION NO.		ITEM
5.1.1	<input type="checkbox"/>	Minor*
5.1.2	<input checked="" type="checkbox"/>	Emphasis*
5.2.1	<input type="checkbox"/>	(CER P) Certificate of Proficiency*
5.2.3	<input type="checkbox"/>	(GCR) Graduate Certificate*
5.4.1	<input type="checkbox"/>	New Administrative Unit
	<input type="checkbox"/>	Administrative Unit Transfer
	<input type="checkbox"/>	Administrative Unit Restructure
	<input type="checkbox"/>	Administrative Unit Consolidation
5.4.2	<input type="checkbox"/>	Conditional Three-Year Approval for New Centers, Institutes, or Bureaus
5.4.3	<input type="checkbox"/>	New Center
	<input type="checkbox"/>	New Institute
	<input type="checkbox"/>	New Bureau
5.5.1	<input type="checkbox"/>	Out-of-Service Area Delivery of Programs
5.5.2	<input type="checkbox"/>	Program Transfer
	<input type="checkbox"/>	Program Restructure
	<input type="checkbox"/>	Program Consolidation
5.5.3	<input type="checkbox"/>	Name Change of Existing Programs
5.5.4	<input type="checkbox"/>	Program Discontinuation
	<input type="checkbox"/>	Program Suspension
5.5.5	<input type="checkbox"/>	Reinstatement of Previously Suspended Program
	<input type="checkbox"/>	Reinstatement of Previously Suspended Administrative Unit

**Requires "Section V: Program Curriculum" of Abbreviated Template*

Chief Academic Officer (or Designee) Signature:

I certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

 Signature

Date: *MM/DD/YEAR*

Printed Name: *Name of CAO or Designee*

¹ CIP codes must be recommended by the submitting institution. For CIP code classifications, please see <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>.

Program Request - Abbreviated Template
University of Utah
Economics: BA and BS
10/15/14

Section I: Request

The Department of Economics is requesting authorization to offer a new transcribed emphasis in "Statistical Analysis for Economics." This emphasis will be awarded to students who complete one of their required focus areas in Introduction to Econometrics (Econ 4650) and who do two of their four open Economics electives in two new courses to be created for the purpose of this emphasis: Econ 4660 – Statistical Tools for Applied Economics Research, and Econ 4670 – Economic Research in the Community. Department of Economics faculty were consulted about the creation of this proposal at faculty meetings in Spring 2014 and Fall 2014 and unanimously agreed to the principle of offering this emphasis.

Section II: Need

This proposal for a new transcribed emphasis in "Statistical Analysis for Economics" arises from three distinct motivations: (1) to serve our majors better by providing them the option to specialize in particular topics within our broad curriculum, (2) to serve our students better by providing them with a more intensive training in technical and analytical skills that are in great demand, and (3) to serve the local community by providing support for research projects of use to community entities.

(1) Providing the Option to Specialize

Students major in economics for a wide variety of reasons, and our curriculum reflects the breadth of interests that students bring to the study of economics. We offer popular courses ranging from the study of the history of economic thought to the nuts and bolts of money and banking. For many students, this breadth is very appealing. Others have more specific goals and are seeking more in-depth preparation in specific topics and skills, as well as a way to signal that depth of preparation to potential employers and graduate schools.¹ Transcribed emphases provide a flexible tool for promoting and signaling specialization, for those students who so desire, while maintaining a more broad and flexible curriculum for students who prefer those qualities.

(2) Providing Intensive Training in Skills that are in Great Demand:

Over the past decade, applied statistics has become an increasingly important feature of research and learning. The Bureau of Labor Statistics projects a 27 percent increase in demand for persons with a background in statistics over the next decade. This growth is substantially higher than projections for other occupations.² A host of new fields in Big Data and Data Science provide students who have a background in statistics rich career opportunities. Exponential growth in computing power accompanied by vast data availability has drastically affected the ways businesses, governments, and research institutions view their

¹ In a Spring 2012 survey of our majors, 85% of 113 respondents indicated interest in having the option to do transcribed emphases as part of their studies.

² Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15*.

respective decision making processes. Data driven or evidence based practices provide valuable insight for organizations to operate efficiently. As Michael Dell argues, data might be the most important natural resource of this century.³

At the undergraduate level at the University of Utah (or even at the graduate level) there are very few courses that discuss issues related to large data analysis or exploratory methods. Although there are many courses involving statistical inference and mathematical statistics, the art of doing statistics is best learned by doing. It is this approach that directs the proposed emphasis, particularly the new two-course sequence.

(3) Providing Support for Research Projects for Local Community Entities

This new emphasis is designed to help students develop their skills in statistics and econometrics and apply those skills to assist organizations in the Utah community. This program will particularly focus on the needs of non-profit organizations in our community. Often non-profits require data analyses to evaluate the efficacy of their interventions or to assess direct needs for future funding. For some, collecting primary data is a top priority and for others, an analysis using secondary data is sufficient. Across the community, students will have the opportunity to experience varied demands by the clients and to work in teams to help find meaningful statistical solutions.

The multidisciplinary nature of statistics requires that students working in the community have exposure to an array of statistical tools. Students following this emphasis will gain a broad introduction to statistical tools in economics through Econ 4650. They will then further develop and apply these skills in Econ 4660 and 4670. Each spring, faculty involved in teaching Econ 4660 and 4670 will identify and help to develop suitable projects in collaboration with local groups. In the following fall semester, students in Econ 4660 will spend time reviewing (or learning) a variety of quantitative methods suited to these projects while gaining fluency in powerful statistical software.

In the spring semester, Econ 4670 will be devoted to “doing” statistics. Relatively small groups of students will work closely with the clients and arrange a suitable timing plan. Over the course of this semester, students will identify appropriate statistical strategies, organize and collect relevant data, and prepare meaningful reports and presentations. Every week the class will meet and review progress. Although each group will have different assignments and most likely be using different statistical tools, the entire class will benefit from learning about the diversity of issues and discovering commonalities among the clients. During the last month of the semester, the groups will present their results to the entire class.

While much of what we are proposing here is new for our department, we do have experience with similar kinds of courses and models. For the past several semesters, we have offered a “Utah Community Research Group” (UCRG) course under a special topics number. Like what we propose here, this course was organized around statistical research for local groups, including clients such as KUER, the Utah Nonprofit Association, and the state fair. This work was primarily focused on market research. What we are proposing here will incorporate projects similar to those carried out by UCRG but will broaden the set of statistical tools and methods and the types of projects carried out by the students. In the past year, we have begun a new relationship with Voices for Utah Children, creating research internships for our majors in

³ https://www.linkedin.com/today/post/article/20140402213559-25383300-a-new-gold-rush-is-on-who-will-strike-it-rich?trk=lipul_fb_0402_michaeldell_goldrush

support of policy analysis projects. We would expect to incorporate some of this work into the course structure created under this emphasis in the coming years.

Section III: Institutional Impact

We do not anticipate any impact on existing administrative structures, and no new facilities, faculty, or staff will be required. While the availability of this emphasis and these new courses may attract new majors to our department, this emphasis is conceived primarily as an option for students who already intend to be economics majors and who are looking for an opportunity to deepen their engagement with particular material and signal those skills more clearly to employers.

Section IV: Finances

No new funds are required, and we don't anticipate an impact on other programs or units. The economics majors who choose this option will be advised by our undergraduate advisor. We do not anticipate a significant increase in the size of our major as a function of the creation of this emphasis.

Section V: Program Curriculum

THIS SECTION OF THE TEMPLATE REQUIRED FOR EMPHASES, MINORS, AND CERTIFICATES ONLY

All Program Courses (with New Courses in Bold)

Course Prefix and Number	Title	Credit Hours
Required Courses		
Econ 2010	Principles of Microeconomics	3
Econ 2020	Principles of Macroeconomics	3
Econ 3620	Mathematics for Economists	3
Econ 3640	Probability and Statistical Inference for Economists	3
Econ 4010	Intermediate Microeconomic Analysis	3
Econ 4020	Intermediate Macroeconomics Analysis	3
Sub-Total		18
Elective Courses		
Elective work in Economics, numbered 3000-5999: 2 "open electives," plus one "focus area" other than Econ 4650		9
Allied Coursework		12
Sub-Total		21
Track/Options (if applicable)		
Econ 4650	Principles of Econometrics	3
Econ 4660	Statistical Tools for Applied Economics Research	3
Econ 4670	Economic Research in the Community	3
Sub-Total		9
Total Number of Credits		48

(This listing describes the optional emphasis in "Statistical Analysis for Economists." Students not choosing this emphasis will continue with the existing program, incorporating the 6 core courses, 12 hours of allied work, 4 open Economics electives, and 2 Economics focus areas.)

Program Schedule

First Year:

Semester 1	Semester 2
Econ 2010 General education hours	Econ 2020 General Education hours

Second Year:

Semester 1	Semester 2
Econ 3620 Econ Elective General Education hours	Econ 3640 Econ Elective General Education Hours

Third Year:

Semester 1	Semester 2
Econ 4010 Econ Focus Area (doctrines or history) Allied work (6 hours)	Econ 4650 Econ 4020 Bachelor Degree requirements

FourthYear:

Semester 1	Semester 2
Econ 4660 Allied work (6 hours) Remaining General Education and Bachelor Degree Requirements	Econ 4670 Remaining General Education and Bachelor Degree Requirements

October 29, 2014

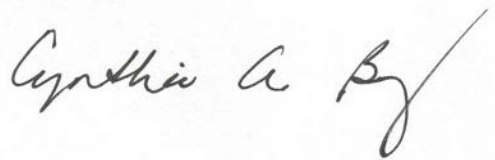
Undergraduate Council
University of Utah

Dear Members of Undergraduate Council:

I am writing to provide my strong support for the Statistical Emphasis in Economics that is being proposed. This emphasis is an important addition to the strong curriculum in the Department of Economics and will add significantly to students' preparation for real-world application of their economics training. The Department of Economics has been successful with such a model on a smaller scale, within the Utah Community Research Group and thus has the expertise to carry out this important emphasis. Not only will this emphasis be an important component of student training, but it addresses the needs of several of our large employers in the area, contributing to the already high market value of our economic students.

I think that this emphasis will be a very significant contribution to student training and would urge you to consider this well designed proposal. Please let me know if you need any additional information (Cynthia.berg@csbs.utah.edu or 801-585-6960).

Sincerely,



Cynthia A. Berg
Dean, College of Social and Behavioral Science
Professor of Psychology

October 28, 2014

Undergraduate Council
Sill Center
CAMPUS

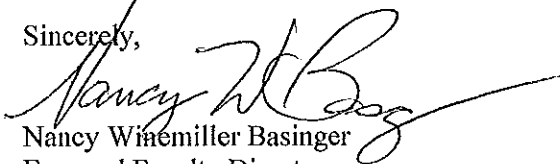
Dear Council Members,

I am pleased to add my support to the proposal to offer a new transcribed emphasis in "Statistical Analysis for Economics" for undergraduate students. In spring 2014 I met with the Department of Economics faculty to help imagine how an opportunity for economics students to apply their skills might benefit the community. I was happy to learn that this proposal has moved forward.

Through my work at the Bennion Center, I regularly interact with a number of nonprofit organizations requesting assistance in data analysis. Though many nonprofits collect data to demonstrate the outcomes of their programs, few have the capacity or capability to perform the analyses on this data that could more fully inform their decision-making. Thus nuanced information that could inform programming and the appropriate allocation of resources to meet community needs is unavailable.

The Bennion Center is committed to providing support to this new emphasis in Economics. In the fall, as needed, we will work with the faculty planning to teach ECON 4670 the following spring semester to form reciprocal partnerships with nonprofit organizations. I am confident that the new proposed emphasis will provide enhanced learning opportunities for students while having a positive impact on our community.

Sincerely,



Nancy Winemiller Basinger
Engaged Faculty Director
Bennion Center