

59. Special Consideration

**College of Liberal Arts**

Department of Economics

Certificate in Quantitative Economics Methods

Request for a new certificate program

## **SPECIAL CONSIDERATION**

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**COLLEGE OF LIBERAL ARTS**

DEPARTMENT OF ECONOMICS

CERTIFICATE IN QUANTITATIVE ECONOMICS METHODS

REQUEST FOR A NEW CERTIFICATE PROGRAM

H23

Program request type:  Undergraduate  Graduate  First Professional (ex., DPM, JD, MD, etc.)  
Requested by the Department or Unit of: Economics

**Program Type, Level, Designation, Title, Description, Hours**

Program Type:  Certificate Program  Degree Program  
Program Level:  UG Certificate  Grad Certificate  Bachelor  Master  Doctoral  Professional  
Degree Designation (i.e., BS, BA, MA, MS, MAgr, MEd, PhD, EdD, etc.) BA

Title of proposed program: Certificate in Quantitative Economic Methods

Proposed CIP Code (if known): 4506030001

SW

Brief program description (provide a catalog description for undergraduate and graduate certificates):  
Drawing from existing courses and faculty, this program prepares students interested in highly quantitative careers or graduate programs in economics with a rigorous set of courses in statistics, mathematics, econometrics, and economics

Minimum program semester credit hours (SCH)    Certificates - 12 hours\*    Bachelors - 120 hours    Masters - 30 hours

Proposed program hours: 18 - 19

\*12 hours minimum to appear on transcript

Certificate Programs  Embedded  Standalone  
*Students take coursework that will result in a degree and certificate being earned at the same time.*    *Non-degree seeking students take coursework to earn a certificate only (no degrees are awarded).*

**Off-Campus or Distance Delivery**

% of Program a student can take off-campus or through

Distance Education	Program Start Date	SACSCOC Approval**	When Provost needs to inform SACSCOC
<input type="checkbox"/> 25%	_____	Notification Only	-----
<input type="checkbox"/> 50%	_____	Approval Required	6 months before first day of program
<input type="checkbox"/> 80%	_____	Approval Required	6 months before first day of program
<input type="checkbox"/> 100%	_____	Approval Required	6 months before first day of program

\*\*Notification letter arranged through the Vice Provost for Academic Affairs and sent by TAMU President.

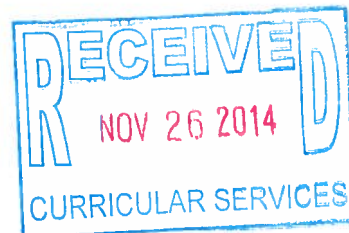
**Program Delivery Mode**

Location  
 On-campus TAMU - College Station  
 Broadcast / TTVN \_\_\_\_\_  
 Specific off-campus location\*\*\* \_\_\_\_\_  
 Distance Education / Internet  In-State  Out-of-State Start Date \_\_\_\_\_  
 Out-of-Country Will this program be offered with another institution?  Yes  No  
If yes, contact the Vice Provost for Academic Affairs for additional reporting requirements.

\*\*\*Is this an approved SACSCOC location?  Yes  No If no, a program prospectus must be sent to SACSCOC. Approved locations as of March 2012: TAMU-Galveston, TAMU-Qatar, University Center-The Woodlands, CityCentre-Houston, Dubai and Saudi Arabia.

**Program Funding**

Has program funding been finalized at the department or college level?  Yes  No  
If no, explain or attach budget: \_\_\_\_\_  
Will new costs for the first five years of the program be under \$2 million?  Yes  No  
If new costs exceed \$2 million, coordinating board approval is required.



**Submitted by (Contact Person):**

Jonathan Meer

jmeer@lamu.edu

Name

Email

Associate Professor & Director of Undergraduate Programs

979-845-2059

Title

Phone

**Certification Statement**

By signing below, the Dean of the College certifies the proposed program complies with coordinating board standards. If the program is delivered through Distance Education, the Dean of the College certifies that they are following the *Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically*.

*Use additional signature lines if program is between three or more departments or colleges.*

Dennis W Jansen      Nov 4 2014  
Signature, Department Head or Interdisciplinary      Date  
Program Chair

\_\_\_\_\_  
Signature, Department Head or Interdisciplinary      Date  
Program Chair (if joint program)

Dennis W Jansen  
Typed or Printed Name

\_\_\_\_\_  
Typed or Printed Name

Nancy J. Stree      11-17-14  
Chair, College Review Committee      Date

\_\_\_\_\_  
Chair, College Review Committee      Date

Smile      11/25/14  
Dean of College      Date

\_\_\_\_\_  
Dean of College      Date

\_\_\_\_\_  
Chair, University Curriculum Committee or      Date  
Graduate Council

\_\_\_\_\_  
Chair, University Curriculum Committee or      Date  
Graduate Council

Additional Approvals Required: Faculty Senate and President.

## New Program Request Form for Certificate Programs

**Directions:** An institution shall use this form to propose a new bachelor's or master's degree program. In completing the form, the institution should refer to the document *Standards for Bachelor's and Master's Programs*, which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval, and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. NOTE: Preliminary authority is required for all engineering programs. An institution that does not have preliminary authority for a proposed engineering program shall submit a separate request for preliminary authority prior to submitting the degree program request form. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

### Administrative Information

1. **Institution:**

Texas A&M University – College Station

2. **Program Name** – Show how the program would appear on the Coordinating Board's program inventory (e.g., *Bachelor of Business Administration degree with a major in Accounting*):

Certificate in Quantitative Economic Methods

3. **Proposed CIP Code:**

4506030001

SW

4. **Brief Program Description** – Describe the program and the educational objectives:

Drawing from existing courses and faculty resources, this certificate program prepares students for entry into an economics Ph.D. program or a highly quantitatively-oriented occupation. Students who complete this certificate will be far more likely to gain admission to selective Ph.D. programs and more attractive to employers looking for those with quantitative and analytical skills.

Number of Semester Credit Hours Required: 18 - 19

5. **Administrative Unit** – Identify where the program would fit within the organizational structure of the university (e.g., *The Department of Electrical Engineering within the College of Engineering*):

The Department of Economics within the College of Liberal Arts

6. **Proposed Implementation Date** – Report the first semester and year that students would enter the program:

Fall 2015

7. **Contact Person** – Provide contact information for the person who can answer specific questions about the program:

Name: Jonathan Meer

Title: Associate Professor & Director of Undergraduate Programs

E-mail: jmeer@tamu.edu

Phone: 979-845-2059

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## Program Information

### I. Need

*Note: Complete I.A and I.B only if preliminary authority for the program was granted more than four years ago. This includes programs for which the institution was granted broad preliminary authority for the discipline.*

- A. Job Market Need – Provide short- and long-term evidence of the need for graduates in the job market.  
 N/A
- B. Student Demand – Provide short- and long-term evidence of demand for the program.  
 N/A
- C. Enrollment Projections – Use this table to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the program. *(Include majors only and consider attrition and graduation.)*

YEAR	1	2	3	4	5
<b>Headcount</b>	10	15	20	20	20
<b>FTSE</b>	10	15	20	20	20

### II. Quality

- A. Certificate and Degree Requirements – Use this table to show the certificate and degree requirements of the program. *(Modify the table as needed; if necessary, replicate the table for more than one option.)*

Category	Semester Credit Hours
General Education Core Curriculum <i>(bachelor's degree only)</i>	
Required Courses	9
Prescribed Electives	9 - 10
Free Electives	
Other <i>(Specify, e.g., internships, clinical work)</i>	(if not included above)
<b>TOTAL</b>	<b>18 - 19</b>

- B. Curriculum – Use these tables to identify the required courses and prescribed electives of the program, and curriculum as it will appear in the undergraduate and graduate catalog. Note with an asterisk (\*) courses that would be added if the program is approved. *(Add and delete rows as needed. If applicable, replicate the tables for different tracks/options as shown in the undergraduate catalog.)*

Prefix and Number	Required Courses	SCH
ECMT 475	Economic Forecasting	3
ECON 460	Introduction to Mathematical Economics	3
ECON 470	Program Evaluation	3

***ANY THREE OF THE FOLLOWING***

Prefix and Number	Prescribed Elective Courses	SCH
STAT 414	Mathematical Statistics I	3
STAT 415	Mathematical Statistics II	3
MATH 220	Foundations of Math	3
MATH 221	Several Variable Calculus	4
MATH 304	Linear Algebra	3
MATH 323	Linear Algebra	3
MATH 409	Advanced Calculus I	3

	TOTAL SCH	18 or 19
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C. Faculty – Use these tables to provide information about Core and Support faculty. Add an asterisk (\*) before the name of the individual who will have direct administrative responsibilities for the program. *(Add and delete rows as needed.)*

<b>Name of <u>Core</u> Faculty and Faculty Rank</b>	<b>Highest Degree and Awarding Institution</b>	<b>Courses Assigned in Program</b>	<b>% Time Assigned To Program</b>
Anderson, Richard Professor	Ph.D. in Economics, Purdue University	ECON 460	17%
Lindo, Jason Associate Professor	Ph.D. in Economics, University of California at Davis	ECON 470	17%
*Meer, Jonathan Associate Professor	Ph.D. in Economics, Stanford University	Undergraduate Program Leadership	10%
Schulman, Craig Visiting Associate Professor	Ph.D. in Economics, Texas AM University	ECMT 475	17%

<b>Name of <u>Support</u> Faculty and Faculty Rank</b>	<b>Highest Degree and Awarding Institution</b>	<b>Courses Assigned in Program</b>	<b>% Time Assigned To Program</b>
Katzfuss, Matthias Assistant Professor	Ph.D. in Statistics, Ohio State University	STAT 414	
Wang, Soujin Professor	Ph.D. in Statistics, University of Texas	STAT 415	
Rowell, Eric Associate Professor	Ph.D. in Mathematics, University of California at San Diego	MATH 220	
Baskin, Dean Assistant Professor	Ph.D. in Mathematics, Stanford University	MATH 221	
Vorobets, Yaroslav Associate Professor	Ph.D. in Mathematics, Moscow State University	MATH 304	
Stecher, Michael Professor	Ph.D. in Mathematics, Indiana University	MATH 323	
Kerr, David Professor	Ph.D. in Mathematics, University of Toronto	MATH 409	

- D. Students – Describe general recruitment efforts and admission requirements. How will students be accepted into the program? In accordance with the institution's Uniform Recruitment and Retention Strategy, describe plans to recruit, retain, and graduate students from underrepresented groups for the program.  
**Students who pursue an undergraduate degree in Economics who are interested in attending graduate school or pursuing highly quantitative careers will be encouraged by professors and advisors to take the necessary courses to complete the certificate requirements. All Economics students will be informed about the program at their New Student Conference and change-of-major seminars. The requirements fall within the 120-hour degree in Economics and most students will not need to take additional coursework.**
- E. Library – Provide the library director's assessment of library resources necessary for the program. Describe plans to build the library holdings to support the program.  
**Current library holdings are sufficient. No new classes will be developed.**
- F. Facilities and Equipment – Describe the availability and adequacy of facilities and equipment to support the program. Describe plans for facility and equipment improvements/additions.  
**No new facilities or equipment will be required.**
- G. Accreditation – If the discipline has a national accrediting body, describe plans to obtain accreditation or provide a rationale for not pursuing accreditation.  
**N/A**
- H. Evaluation – Describe the evaluation process that will be used to assess the quality and effectiveness of the new degree program.  
**The Department of Economics reviews its courses and programs on a yearly basis. We will analyze employment and graduate school placements for program participants and conduct exit interviews with students.**
- I. Administration of Program – Describe how the program will be administered. Where will the program be administered (i.e., department, college)?  
**The program will be wholly administered within the Department of Economics. During their graduating semester, students who complete the certificate requirements will fill out a Certificate in Quantitative Economic Methods request form detailing the courses they completed. Members of the Department of Economics advising staff will check the forms and forward the information to the Office of the Registrar in a timely fashion to ensure the certificate designation is included on student transcripts.**

### III. Costs and Funding

Five-Year Costs and Funding Sources - Use this table to show five-year costs and sources of funding for the program.

Five-Year Costs		Five-Year Funding	
Personnel <sup>1</sup>	\$0	Reallocated Funds	\$0
Facilities and Equipment	\$0	Anticipated New Formula Funding <sup>3</sup>	\$0
Library, Supplies, and Materials	\$0	Special Item Funding	\$0
Other <sup>2</sup>	\$0	Other <sup>4</sup>	\$0
<b>Total Costs</b>	<b>\$0</b>	<b>Total Funding</b>	<b>\$0</b>

1. Report costs for new faculty hires, graduate assistants, and technical support personnel. For new faculty, prorate individual salaries as a percentage of the time assigned to the program. If existing faculty will contribute to program, include costs necessary to maintain existing programs (e.g., cost of adjunct to cover courses previously taught by faculty who would teach in new program).
2. Specify other costs here (e.g., administrative costs, travel).
3. Indicate formula funding for students new to the institution because of the program; formula funding should be included only for years three through five of the program and should reflect enrollment projections for years three through five.
4. Report other sources of funding here. In-hand grants, "likely" future grants, and designated tuition and fees can be included.

### Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

*I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.*

\_\_\_\_\_

Chief Executive Officer

\_\_\_\_\_

Date

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

*On behalf of the Board of Regents, I approve the program.*

\_\_\_\_\_

Board of Regents (Designee)

\_\_\_\_\_

Date of Approval

3. Board of Regents Certification of Criteria for Commissioner of Assistant Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

- (1) be within the institution's current Table of Programs;
- (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
- (3) have sufficient clinical or in-service sites, if applicable, to support the program;
- (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
- (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
- (6) not unnecessarily duplicate existing programs at other institutions;
- (7) not be dependent on future Special Item funding
- (8) have new five-year costs that would not exceed \$2 million.

*On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).*

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Board of Regents (Designee)

Date

## Higginbotham, Sheryl K

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**From:** Jonathan Meer <jmeer@econmail.tamu.edu>  
**Sent:** Saturday, November 15, 2014 2:15 PM  
**To:** Higginbotham, Sheryl K  
**Cc:** Ura, Sarah; Oberhelman, Steven M  
**Subject:** UIC Agenda Item

Sherry,  
I've attached my response to Paulo regarding his question. As noted below, I think the marginal increase in enrollment will be relatively low; many of our students who are PhD- or quantitative-career-bound were already taking some of these courses.

Thanks,  
Jonathan

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**From:** Jonathan Meer  
**Sent:** Monday, November 03, 2014 3:15 PM  
**To:** Paulo Lima-Filho  
**Subject:** RE: Economics certificate

Paulo,  
Thanks very much for the information. I really doubt that there would be more than 5 students who would not otherwise have taken those classes enrolling due to this certificate. If you have any thoughts on additional classes, I would love to hear them. In crafting this list, I consulted with the faculty in our first-year Ph.D. sequence to find out what their minimum expectations would be for incoming students.

Yours,  
Jonathan

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**From:** Paulo Lima-Filho [<mailto:plfilho@math.tamu.edu>]  
**Sent:** Thursday, October 30, 2014 12:28 PM  
**To:** Jonathan Meer  
**Subject:** Re: Economics certificate

Dear Jonathan,

I do not see any problems with listing our courses in your certificate degree. Please let us know if this will entail a substantial increase in enrollment (although you seem to indicate that this will have a small enrollment), so that we can plan accordingly. Also, if you need to know more about other courses that we offer that might potentially be beneficial to your program, I will be very glad to talk to you about them.

Best,  
Paulo

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**Paulo Lima-Filho**  
*Professor*  
*Associate Head for Operations and Undergraduate Programs*  
*Department of Mathematics*  
*Associate Dean for International Programs*

College of Science  
Texas A&M University  
Phone: (979)845-1981

On Oct 29, 2014, at 10:12 PM, Jonathan Meer <[jmeer@econmail.tamu.edu](mailto:jmeer@econmail.tamu.edu)> wrote:

Dear Paulo,

I just wanted to follow up with you on this question - we're getting set to submit the paperwork for our Quantitative Economic Methods certificate and wanted to ensure that there are no issues with us listing several recommended mathematics courses as part of the certificate.

Yours,  
Jonathan

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**From:** Jonathan Meer  
**Sent:** Thursday, October 23, 2014 3:37 PM  
**To:** 'pfilho@math.tamu.edu'  
**Subject:** Economics certificate

Dear Paulo,

I'm your counterpart over in the economics department. We're setting up a certificate in Quantitative Economic Methods for our students who are graduate-school-bound. It won't require any new courses, but we're laying out a set of recommended math courses that are expected by the admissions committees of economics PhD programs (e.g. MATH 220, 221, 323, and 409). My best guess at headcount is about 10 per graduating cohort, most of whom would have been taking those classes anyway. I just wanted to check with you that there is no objection from the mathematics department to us listing these courses in our QEM certificate.

Yours,  
Jonathan

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Dr. Jonathan Meer  
3042 Allen Building  
Department of Economics  
Texas A&M University  
[jmeer@econmail.tamu.edu](mailto:jmeer@econmail.tamu.edu)  
<http://econweb.tamu.edu/jmeer>  
Make appointments at <http://jmeer.youcanbook.me/>  
(979) 845-2059

## **Higginbotham, Sheryl K**

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**From:** Parker, Amy L <aparker@stat.tamu.edu>  
**Sent:** Monday, October 27, 2014 4:48 PM  
**To:** Jonathan Meer  
**Subject:** Econ Certificate

Jonathan,

Our department heads have met and do not have any issues with the Economics department requiring Stat 414 and 415 to be included in the certificate.

Let me know if you have any other questions.

Thanks,

Amy Parker  
Academic Advisor II  
Department of Statistics  
979-845-8886