

Program Change Request

New Program Proposal

Date Submitted: 04/04/20 9:22 pm

Viewing: **ECON-CRTU : Certificate in Econometrics**

Last edit: 04/10/20 11:34 am

Changes proposed by: d665s602

Academic Career Undergraduate, Lawrence

Program Type Certificate

Department/Program Economics

School/College College of Lib Arts & Sciences

Consulting School(s)/College(s)

Consulting Department(s)

CIP Code 45.0603

Program Name Certificate in Econometrics

Do you intend to offer a track(s)?

Location(s) of Instruction Edwards
Lawrence

Do you intend for this program to be offered online?

Yes

Effective Catalog 2021 - 2022

In Workflow

A. CLAS Dean or Associate Dean

B. Provost's Office

C. CLAS Undergraduate Program and Course Coordinator

D. CUSA Subcommittee

E. CUSA Committee

F. CAC

G. CLAS Final Approval

H. OIRP CIP Approval

I. Provost's Office

J. Future Academic Catalog

Approval Path

A. 04/10/20 11:58 am
Karen Ledom (kjh): Approved for CLAS Dean or Associate Dean

Program Description

This certificate will supply a focused and immersive, yet flexible specialization in economics. It will give students outside the economics program the opportunity to receive vital economics specialization without changing majors.

The certificate being created will require four courses (twelve hours), not counting math prerequisites. It will require a statistics course, an econometrics course, and two 600+ level electives from an approved list of courses.

Demand/Need for the Program

An economics education provides the foundation for a successful career in business and research. Employees with a strong understanding of how the economy works, how a business fits into a specific market, and how to analyze economic and financial data are in high demand. Common jobs for those with economics backgrounds include management analyst and market research analyst. Both careers are seeing tremendous growth, growing at 14% and 20% respectively according to the Bureau of Labor Statistics (BLS). This compared to the roughly 5% average occupational growth rate reported by the BLS. Other occupations requiring some economics background include operations research analyst and natural science manager, a job engineers with economics training would be uniquely suited for. These jobs are both growing at or above average according to the BLS.

The purpose of the certificates is to provide an economic education to those in other schools or majors with no room to major or minor in economics. In our quest to attract top students, the economics program often runs into an issue with inflexibility both in our degree plans and in the majors of other top performing students. For example, the School of Engineering has such strict course requirements that the typical engineering student simply does not have room to minor in economics, much less to double major. A large portion of our honors introductory courses are comprised of students from the School of Engineering. 30% of ECON 143 and 42% of ECON 145 students from Fall 2014 - Summer 2019 were engineering majors. This shows that there is genuine interest in economics from engineering majors, and we believe we can convert this clear interest into the certificate.

The certificate is more demanding in terms of intensity of economic courses required and number of high-level math prerequisites required than the minor, so

we anticipate no loss of current or future economics minors to the certificate. Furthermore, School of Engineering students must complete the required math prerequisites anyway, so we anticipate no adverse effects of such requirements in terms of engineering student recruitment.

Comparative/Locational Advantage

Currently, no other major college of university in the area offers an undergraduate certificate in economics. Schools without economics certificates include Kansas State University, Wichita State University, and the University of Missouri. Pioneering this program would allow us to attract students in strenuous majors such as engineering who may also be interested in economics training, but who can not fit a double major or a minor into their schedules. We would become the only school in the area where this would be feasible.

Admission Requirements None.
Not open to students majoring or minoring in economics.

Degree Requirements

Course List

Code	Title	Hours
ECON 426	Statistics and Data Analysis for Economics	3
or MATH 526	Applied Mathematical Statistics I	
ECON 526	Introduction to Econometrics	3
or ECON 715	Elementary Econometrics	
ECON 600+ metrics based elective. Choose two of the following:		6
ECON 716	Econometric Forecasting	
ECON 816	Probability and Statistics	
ECON 817	Econometrics I	
ECON 818	Econometrics II	
ECON 870	Applied Microeconomics	
LA&S 792	Topics in: _____ (Research Data Methods)	

Faculty Profile

Name of Faculty and Rank	Highest Degree	Number of Faculty FTE
Zongwu Cai	Ph.D.	1
Donna Ginther	Ph.D.	1
Shahnaz Parsaeian	Ph.D.	1
Josephine Lugovskyy	Ph.D.	1
Jianbo Zhang	Ph.D.	1

Student Profile

Anticipated student enrollment			
	Full Time	Part Time	Total
Year 1	27	0	27
Year 2	27	0	27
Year 3	27	0	27

Anticipated number of program graduates	
After 5 Years	27
After 7 Years	27

Academic Support

None

Facilities and Equipment

None

Program Review, Assessment, Accreditation

Program will be reviewed periodically by the economics department's undergraduate committee.

Costs, Financing

	Salaries	OOE	Equipment	Other	TOTAL
Year 1	0	0	0	0	0

	Salaries	OOE	Equipment	Other	TOTAL
Year 2	0	0	0	0	0
Year 3	0	0	0	0	0

What is the source of the new funds?

Existing economics courses have room to accommodate the increase in enrollment from the introduction of this certificate.

We anticipate no additional funds are needed.

Rationale for proposal

Many students from across the university take introductory economics and want to continue their studies in a formal program but lack the curricular room to complete a 15 more hours for a minor (e.g., engineers). Many of these students are strong in math and so could jump into upper level economics courses. This certificate, with the other two (mutually exclusive) ones proposed, provides a way for a student for 9 more hours to complete a specialized economics program around an area of interest.

Additional Information

Calculations for anticipated student enrollment:

Supply Side

We calculate the average number of additional students we can accommodate. The enrollment constraint may be either the statistics course (ECON 426 or MATH 526) or the econometrics course (ECON 526 or ECON 715). Over the past two academic years, we have averaged 27.5 unfilled spaces in the former and 31 in the latter. We therefore project 27 as the enrollment in the program that we can easily meet, likely entirely from full time students.

Demand Side

Roughly 12,000 students currently meet the math prerequisites for the proposed certificates, and about half of those students are from outside the College of Liberal Arts and Sciences. Furthermore, a very large percentage of 100 level economics courses are comprised of engineering majors. First we take the number of students at KU who have the prerequisites satisfied by having taken calculus I or II since 2016, this gives us the total number of students who meet the prerequisites for the certificate. We then subtract 340, the current number of students majoring or minoring in economics. Then we assume 2% of these remaining students will complete the economics certificate. In reality, we would expect these enrollment numbers to grow annually as the number of students taking Calc. I or II is growing annually, but do not account for that growth in our projections. Furthermore, we expect some students to have graduated and thus the total number of eligible students is most likely lower than we assume. We arrive at the conclusion, through this method, that we would gain 253 new economics students per semester.

Supporting Documents

Program Reviewer Comments

Karen Ledom (kjh) (04/10/20 10:23 am): sent to Dean/AD 4/10/2020

Key: 718



Program Change Request

New Program Proposal

Date Submitted: 04/04/20 9:16 pm

Viewing: **ECON-CRTU : Certificate in Macroeconomics**

Last edit: 04/10/20 11:09 am

Changes proposed by: d665s602

Academic Career	Undergraduate, Lawrence
Program Type	Certificate
Department/ Program	Economics
School/College	College of Lib Arts & Sciences
Consulting School(s)/College(s)	
Consulting Department(s)	
CIP Code	45.0603
Program Name	Certificate in Macroeconomics
Do you intend to offer a track(s)?	No
Location(s) of Instruction	Edwards Lawrence
Do you intend for this program to be offered online?	Yes
Effective Catalog	2021 - 2022

In Workflow

A. CLAS Dean or Associate Dean

B. Provost's Office

C. CLAS Undergraduate Program and Course Coordinator

D. CUSA Subcommittee

E. CUSA Committee

F. CAC

G. CLAS Final Approval

H. OIRP CIP Approval

I. Provost's Office

J. Future Academic Catalog

Approval Path

A. 04/10/20 11:58 am
Karen Ledom (kjh): Approved for CLAS Dean or Associate Dean

Program Description

This certificate will supply a focused and immersive, yet flexible specialization in economics. It will give students outside the economics program the opportunity to receive vital economics specialization without changing majors.

The certificate being created will require four courses (twelve hours), not counting math prerequisites. They will require an intro course, a 500 level intermediate course, and two 600+ level electives from an approved list of courses.

Demand/Need for the Program

An economics education provides the foundation for a successful career in business and research. Employees with a strong understanding of how the economy works, how a business fits into a specific market, and how to analyze economic and financial data are in high demand. Common jobs for those with economics backgrounds include management analyst and market research analyst. Both careers are seeing tremendous growth, growing at 14% and 20% respectively according to the Bureau of Labor Statistics (BLS). This compared to the roughly 5% average occupational growth rate reported by the BLS. Other occupations requiring some economics background include operations research analyst and natural science manager, a job engineers with economics training would be uniquely suited for. These jobs are both growing at or above average according to the BLS.

The purpose of the certificates is to provide an economic education to those in other schools or majors with no room to major or minor in economics. In our quest to attract top students, the economics program often runs into an issue with inflexibility both in our degree plans and in the majors of other top performing students. For example, the School of Engineering has such strict course requirements that the typical engineering student simply does not have room to minor in economics, much less to double major. A large portion of our honors introductory courses are comprised of students from the School of Engineering. 30% of ECON 143 and 42% of ECON 145 students from Fall 2014 - Summer 2019 were engineering majors. This shows that there is genuine interest in economics from engineering majors, and we believe we can convert this clear interest into the certificate.

The certificate is more demanding in terms of intensity of economic courses required and number of high-level math prerequisites required than the minor, so

we anticipate no loss of current or future economics minors to the certificate. Furthermore, School of Engineering students must complete the required math prerequisites anyway, so we anticipate no adverse effects of such requirements in terms of engineering student recruitment.

Comparative/Locational Advantage

Currently, no other major college of university in the area offers an undergraduate certificate in economics. Schools without economics certificates include Kansas State University, Wichita State University, and the University of Missouri. Pioneering this program would allow us to attract students in strenuous majors such as engineering who may also be interested in economics training, but who can not fit a double major or a minor into their schedules. We would become the only school in the area where this would be feasible.

Admission Requirements None.
Not open to students majoring or minoring in economics.

Degree Requirements

Course List

Code	Title	Hours
ECON 144	Principles of Macroeconomics	3
or ECON 145	Principles of Macroeconomics, Honors	
ECON 522	Macroeconomics	3
or ECON 523	Macroeconomics Honors	
ECON 600+	Macro based elective. Choose two of the following:	6
ECON 600	Money and Banking	
ECON 605	International Finance	
ECON 680	Economic Growth	
ECON 701	Survey of Macroeconomics	
ECON 740	Theory of Economic Growth and Development	
ECON 810	Macroeconomics I	
ECON 811	Macroeconomics II	

Faculty Profile

Name of Faculty and Rank	Highest Degree	Number of Faculty FTE
Josephine Lugovskyy	Ph.D.	1
William Barnett	Ph.D.	1
John Keating	Ph.D.	1
Elizabeth Aseidu	Ph.D.	1
Eungsik Kim	Ph.D.	1
Sebastien Mary	Ph.D.	1

Student Profile

Anticipated student enrollment			
	Full Time	Part Time	Total
Year 1	36	0	36
Year 2	36	0	36
Year 3	36	0	36

Anticipated number of program graduates	
After 5 Years	36
After 7 Years	36

Academic Support

None

Facilities and Equipment

None

Program Review, Assessment, Accreditation

Program will be reviewed periodically by the economics department's undergraduate committee.

Costs, Financing

	Salaries	OOE	Equipment	Other	TOTAL
Year 1	0	0	0	0	0
Year 2	0	0	0	0	0
Year 3	0	0	0	0	0

What is the source of the new funds?

Existing economics courses have room to accommodate the increase in enrollment from the introduction of this certificate.

We anticipate no additional funds are needed.

Rationale for proposal

Many students from across the university take introductory economics and want to continue their studies in a formal program but lack the curricular room to complete a 15 more hours for a minor (e.g., engineers). Many of these students are strong in math and so could jump into upper level economics courses. This certificate, with the other two (mutually exclusive) ones proposed, provides a way for a student for 9 more hours to complete a specialized economics program around an area of interest.

Additional Information

Calculations for anticipated student enrollment:

Supply Side

We calculate the average number of additional students we can accommodate. The enrollment constraint will likely be the intermediate course. Over the past two academic years, we have averaged 36 unfilled spaced in ECON 522. We therefore project that as the enrollment in the program that we can easily meet, likely entirely from full time students.

Demand Side

Roughly 12,000 students currently meet the math prerequisites for the proposed certificates, and about half of those students are from outside the College of Liberal Arts and Sciences. Furthermore, a very large percentage of 100 level economics courses are comprised of engineering majors. First we take the number of students at KU who have the prerequisites satisfied by having taken calculus I or II since 2016, this gives us the total number of students who meet the prerequisites for the certificate. We then subtract 340, the current number of students majoring or minoring in economics. Then we assume 2% of these remaining students will complete the economics certificate. In reality, we would expect these enrollment numbers to grow annually as the number of students taking Calc. I or II is growing annually, but do not account for that growth in our projections. Furthermore, we expect some students to have graduated and thus the total number of eligible students is most likely lower than we assume. We arrive at the conclusion, through this method, that we would gain 253 new economics students per semester.

Supporting Documents

Program Reviewer Comments

Karen Ledom (kjh) (04/10/20 10:23 am): Sent to Dean/AD 4/10/2020

Key: 719



Program Change Request

New Program Proposal

Date Submitted: 04/04/20 9:17 pm

Viewing: **ECON-CRTU : Certificate in Microeconomics**

Last edit: 04/10/20 11:40 am

Changes proposed by: d665s602

Academic Career	Undergraduate, Lawrence
Program Type	Certificate
Department/ Program	Economics
School/College	College of Lib Arts & Sciences
Consulting School(s)/College(s)	
Consulting Department(s)	
CIP Code	45.0603
Program Name	Certificate in Microeconomics
Do you intend to offer a track(s)?	No
Location(s) of Instruction	Edwards Lawrence
Do you intend for this program to be offered online?	Yes
Effective Catalog	2021 - 2022

In Workflow

- A. CLAS Dean or Associate Dean
- B. Provost's Office
- C. CLAS Undergraduate Program and Course Coordinator
- D. CUSA Subcommittee
- E. CUSA Committee
- F. CAC
- G. CLAS Final Approval
- H. OIRP CIP Approval
- I. Provost's Office
- J. Future Academic Catalog

Approval Path

- A. 04/03/20 5:16 pm
Rachel Schwien (rschwien): Rollback to Initiator
- B. 04/10/20 11:58 am
Karen Ledom (kjh): Approved for CLAS Dean or Associate Dean

Program Description

This certificate will supply a focused and immersive, yet flexible specialization in economics. It will give students outside the economics program the opportunity to receive vital economics specialization without changing majors.

The certificate being created will require four courses (twelve hours), not counting math prerequisites. They will require an intro course, a 500 level intermediate course, and two 600+ level electives from an approved list of courses.

Demand/Need for the Program

An economics education provides the foundation for a successful career in business and research. Employees with a strong understanding of how the economy works, how a business fits into a specific market, and how to analyze economic and financial data are in high demand. Common jobs for those with economics backgrounds include management analyst and market research analyst. Both careers are seeing tremendous growth, growing at 14% and 20% respectively according to the Bureau of Labor Statistics (BLS). This compared to the roughly 5% average occupational growth rate reported by the BLS. Other occupations requiring some economics background include operations research analyst and natural science manager, a job engineers with economics training would be uniquely suited for. These jobs are both growing at or above average according to the BLS.

The purpose of the certificates is to provide an economic education to those in other schools or majors with no room to major or minor in economics. In our

quest to attract top students, the economics program often runs into an issue with inflexibility both in our degree plans and in the majors of other top performing students. For example, the School of Engineering has such strict course requirements that the typical engineering student simply does not have room to minor in economics, much less to double major. A large portion of our honors introductory courses are comprised of students from the School of Engineering. 30% of ECON 143 and 42% of ECON 145 students from Fall 2014 - Summer 2019 were engineering majors. This shows that there is genuine interest in economics from engineering majors, and we believe we can convert this clear interest into the certificate.

The certificate is more demanding in terms of intensity of economic courses required and number of high-level math prerequisites required than the minor, so we anticipate no loss of current or future economics minors to the certificate. Furthermore, School of Engineering students must complete the required math prerequisites anyway, so we anticipate no adverse effects of such requirements in terms of engineering student recruitment.

Comparative/Locational Advantage

Currently, no other major college of university in the area offers an undergraduate certificate in economics. Schools without economics certificates include Kansas State University, Wichita State University, and the University of Missouri. Pioneering this program would allow us to attract students in strenuous majors such as engineering who may also be interested in economics training, but who can not fit a double major or a minor into their schedules. We would become the only school in the area where this would be feasible.

Admission Requirements None.
Not open to students majoring or minoring in economics.

Degree Requirements

Code	Title	Hours
ECON 142	Principles of Microeconomics	3
or ECON 143	Principles of Microeconomics, Honors	
ECON 520	Microeconomics	3
or ECON 521	Microeconomics Honors	
ECON 600+ Micro based elective. Choose two of the following:		6
ECON 604	International Trade	
ECON 609	Sports Economics	
ECON 610	Resource Economics and Environmental Policy	
ECON 620	Elements of Mathematical Economics	
ECON 622	Public Finance	
ECON 630	Industrial Organization and Antitrust Policy	
ECON 631	Economics of Regulation	
ECON 635	Science and Technology in Economic Growth	
ECON 640	Labor Economics	
or ECON 641	Labor Economics - Capstone	
ECON 669	The Economics of Financial Markets	
ECON 675	Introduction to Welfare Economics	
ECON 700	Survey of Microeconomics	
ECON 730	Topics in Industrial Organization	
ECON 735	Science and Technology in Economic Growth	
ECON 769	Financial Economics	
ECON 770	Economics of the Labor Market	
ECON 790	Game Theory and Applications	
ECON 791	Game Theory and Applications II	
ECON 800	Optimization Techniques I	
ECON 801	Microeconomics I	
ECON 802	Microeconomics II	

Faculty Profile

Name of Faculty and Rank	Highest Degree	Number of Faculty FTE
Bernard Cornet	Ph.D.	1
Donna Ginther	Ph.D.	1
Dietrich Earnhart	Ph.D.	1
Tarun Sabarwal	Ph.D.	1
Jianbo Zhang	Ph.D.	1
David Slusky	Ph.D.	1
Tsvetan Tsvetanov	Ph.D.	1

John Zhu	Ph.D.	1
Josephine Lugovskyy	Ph.D.	1
Azadeh Jalali	Ph.D.	1
Sebastien Mary	Ph.D.	1
Alfred Okao	M.A.	1
Craig Hakkio	Ph.D.	1

Student Profile

Anticipated student enrollment			
	Full Time	Part Time	Total
Year 1	72	0	72
Year 2	72	0	72
Year 3	72	0	72

Anticipated number of program graduates	
After 5 Years	72
After 7 Years	72

Academic Support

None

Facilities and Equipment

None

Program Review, Assessment, Accreditation

Program will be reviewed periodically by the economics department's undergraduate committee.

Costs, Financing

	Salaries	OOE	Equipment	Other	TOTAL
Year 1	0	0	0	0	0
Year 2	0	0	0	0	0
Year 3	0	0	0	0	0

What is the source of the new funds?

Existing economics courses have room to accommodate the increase in enrollment from the introduction of this certificate.

We anticipate no additional funds are needed.

Rationale for proposal

Many students from across the university take introductory economics and want to continue their studies in a formal program but lack the curricular room to complete a 15 more hours for a minor (e.g., engineers). Many of these students are strong in math and so could jump into upper level economics courses. This certificate, with the other two (mutually exclusive) ones proposed, provides a way for a student for 9 more hours to complete a specialized economics program around an area of interest.

Additional Information

Calculations for anticipated student enrollment:

Supply Side

We calculate the average number of additional students we can accommodate. The enrollment constraint will likely be the intermediate course. Over the past two academic years, we have averaged 72 unfilled spaced in ECON 520. We therefore project that as the enrollment in the program that we can easily meet, likely entirely from full time students.

Demand Side

Roughly 12,000 students currently meet the math prerequisites for the proposed certificates, and about half of those students are from outside the College of Liberal Arts and Sciences. Furthermore, a very large percentage of 100 level economics courses are comprised of engineering majors. First we take the number of students at KU who have the prerequisites satisfied by having taken calculus I or II since 2016, this gives us the total number of students who meet the perquisites for the certificate. We then subtract 340, the current number of students majoring or minoring in economics. Then we assume 2% of these remaining students will complete the economics certificate. In reality, we would expect these enrollment numbers to grow annually as the number of students taking Calc. I or II is growing annually, but do not account for that growth in our projections. Furthermore, we expect some students to have graduated and thus

the total number of eligible students is most likely lower than we assume. We arrive at the conclusion, through this method, that we would gain 253 new economics students per semester.

[Supporting Documents](#)

[Program Reviewer Comments](#)

Rachel Schwien (rschwien) (04/03/20 5:16 pm): Rollback: Please submit as separate certificates
Karen Ledom (kjh) (04/10/20 10:24 am): Sent to Dean/AD 4/10/2020

Key: 717

