



Gatton
COLLEGE OF BUSINESS & ECONOMICS
UNIVERSITY OF KENTUCKY

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From: Mark Liu, PhD
Director, MS Finance
Associate Professor of Finance
345J Gatton College of B&E
TEL: 2579842
Email: mark.liu@uky.edu

To: Kenneth Troske, PhD
Associate Dean of Graduate Programs and Outreach
Richard and Jan Furst Endowed Chair of Economics
Gatton College of Business and Economics

RE: STEM CIP for Master of Science in Finance

February 1, 2017

Dear Ken:

I am writing to request a change of the CIP code for the Master of Science in Finance (MSF) program.

I have filled out the form to change the CIP code for the MSF from 52.0801 (Finance, General) to 27.0305 (Quantitative Finance, which is under the category Financial Mathematics). The new CIP code 27.0305 is a STEM CIP.

The purpose of the STEM CIP is for international students. The STEM CIP is recorded on an international student's I-20 and would allow the student work in the States following graduation. For those international students who graduate from a program with the government approved STEM CIP code can work up to 3 years while waiting to obtain an H1B or green card. Whereas, an international student who graduates from a non-STEM designated program only has 1 year to work and obtain work visa.

Having a STEM CIP will increase the appeal of our MSF program to international students.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mark Liu', written over a faint circular stamp.

Mark Liu

CHANGE MASTERS DEGREE PROGRAM FORM

1. GENERAL INFORMATION

College:	Busniess & Economics	Department:	Finance and Quantitative Methods
Current Major Name:	Master of Science in Finance	Proposed Major Name:	same
Current Degree Title:	MSF	Proposed Degree Title:	same
Formal Option(s):		Proposed Formal Option(s):	
Specialty Fields w/in Formal Option:		Proposed Specialty Fields w/in Formal Options:	
Date of Contact with Associate Provost for Academic Administration ¹ :			
Bulletin (yr & pgs):		CIP Code ¹ :	27.0305
		Today's Date:	February 1, 2017
Accrediting Agency (if applicable):	AACSB		
Requested Effective Date:	<input checked="" type="checkbox"/> Semester following approval.		OR <input type="checkbox"/> Specific Date ² :
Dept. Contact Person:	Bradford Jordan	Phone:	859-2574887
		Email:	bjordan@uky.edu

2. CHANGE(S) IN PROGRAM REQUIREMENTS

		<u>Current</u>	<u>Proposed</u>
1.	Number of transfer credits allowed (Maximum is Graduate School limit of 9 hours or 25% of course work)	9	9
2.	Residence requirement (if applicable)		
3.	Language(s) and/or skill(s) required		
4.	Termination criteria		
5.	Plan A Degree Plan requirements ³ (thesis)		
6.	Plan B Degree Plan requirements ³ (non-thesis)	30	30
7.	Distribution of course levels required (At least one-half must be at 600+ level & two-thirds must be in organized courses.)		
8.	Required courses (if applicable)		
9.	Required distribution of courses within program (if applicable)		
10.	Final examination requirements		
11.	Explain whether the proposed changes to the program (as described in sections 1 to 10) involve courses offered by another department/program. <u>Routing Signature Log must include approval by faculty of additional</u>		

¹ Prior to filling out this form, you MUST contact the Associate Provost for Academic Administration (APAA). If you do not know the CIP code, the APAA can provide you with that during the contact.

² Program changes are typically made effective for the semester following approval. No changes will be made effective until all approvals are received.

³ If there is only one plan for the degree, plans involving a thesis (or the equivalent in studio work, etc.) should be discussed under Plan A and those not involving a thesis should be discussed under Plan B.

CHANGE MASTERS DEGREE PROGRAM FORM

	<u>department(s).</u>
12.	List any other requirements not covered above?
13.	Please explain the rationale for changes. If the rationale involves accreditation requirements, please include specific references to those requirements.
	<p>This form is to change the CIP code for the Master of Science in Finance from 52.0801 (Finance, General) to 27.0305 (Quantitative Finance, which is under the category Financial Mathematics). The new CIP code is a STEM CIP.</p> <p>The purpose of the STEM CIP is for international students. The STEM CIP is recorded on an international student's I-20 and would allow the student work in the States following graduation. For those international students who graduate from a program with the government approved STEM CIP code can work up to 3 years while waiting to obtain an H1B or green card. Whereas, an international student who graduates from a non-STEM designated program only has 1 year to work and obtain work visa.</p> <p>Having a STEM CIP will increase the appeal of our MSF program to international students.</p>

CHANGE MASTERS DEGREE PROGRAM FORM
Signature Routing Log

General Information:

Proposal Name: Program Change - MSF

Proposal Contact Person Name: Mark Liu Phone: 2579842 Email: mark.liu@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Brad Jordan/Dept Chair	2/6/17	Brad Jordan / 7-4487 / bjordan@uky.edu	 <small>DN: cn=Bradford Jordan, ou=University of Kentucky, ou=Carlson College of Business and Economics, email=bjordan@uky.edu, c=US Date: 2017.02.06 15:23:19 -0500</small>
Kenneth Troske/Associate Dean	2/6/17	Kenneth Troske / 7-1282 / ktroske@uky.edu	 <small>Digitally signed by Kenneth A. Troske DN: cn=Kenneth A. Troske, ou=University of Kentucky, ou=Carlson College of Business and Economics, email=ktroske@uky.edu, c=US Date: 2017.02.06 15:23:34 -0500</small>
		/ /	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision ⁴
Undergraduate Council			
Graduate Council		Roshan Nikou	
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

⁴ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

Brothers, Sheila C

From: Nikou, Roshan
Sent: Monday, February 20, 2017 2:42 PM
To: Brothers, Sheila C; Ett, Joanie M; Jackson, Brian A; Lindsay, Jim D.; McCormick, Katherine; Nikou, Roshan; Price, Cleo; Timoney, David M
Cc: Troske, Kenneth; Liu, Huan L; Cormier, Marc L; Huja, Sarandeep S; Wackerbarth, Sarah B; Cprek, Sarah E
Subject: Transmittals
Attachments: Revised New Univ Scholars Pgm_BPH MPH FINAL Complete.pdf; Masters CHANGE (form + SRL) MPH PHP&M.pdf; ITOHS Program Proposal - HCCC.pdf; AAD 475G.pdf; MS Finance Change 02082017.pdf; KHP Master of Science, Sport and Exercise Psychology 111816.pdf

TO: Katherine McCormick, Chair and Sheila Brothers, Coordinator

FROM: Brian Jackson, Chair and Roshan Nikou, Coordinator
Graduate Council

The Graduate Council approved the following proposals and is now forwarding them to the Senate Council to approve. The courses listed below, are all accessible via Curriculog except the attached AAD 475G, which we received via email from Senate Council.

Programs

Master of Science in Finance
Master of Science in Sport and Exercise Psychology
University Scholars Program in Public Health
Master of Public Health
Interdisciplinary Translational Oral Health Sciences

Courses

AAD 475G Managing Your Artistic Career
RC 550 Ethics in Rehabilitation and Mental Health Counseling
CPH 632 Fundamentals of Clinical Research
EDC 750 Internship in Instructional Systems Design
CPH 712 Advanced Epidemiology
EDP 600 Life Span of Human Development and Behavior
EE 599 Topics in Electrical Engineering



Roshan Nikou, MA

Graduate Council Coordinator
101 Ezra Gillis Building | Lexington, KY 40506-0033
(859)257-1457 | www.gradschool.uky.edu
roshan.nikou@uky.edu

Table 42
STEM+H Programs
Request for Approval Form

The Council on Postsecondary Education defines STEM+H fields by the federal Classification of Instructional Program (CIP codes). The specific subset of CIP codes that comprise the STEM+H disciplines are periodically reviewed and updated. Institutions wanting to submit **current academic programs** for consideration for STEM+H status should follow the instructions listed below.

1. A representative from the Academic Affairs office (or another appropriate office) at the institution shall contact Kim Arington (Kimberly.arington@ky.gov) with the CIP Code and title of the program proposed for STEM+H designation.
2. Within 2 business days, Kim Arington will send the **STEM+H Request for Approval Form** (see attached) to the representative at the institution.
3. The form will be completed by a representative at the institution, signed by the Provost, and returned to Kim Arington within 10 business days of receipt of the form.
4. CPE Academic Affairs staff will review and Kim Arington will respond within 10 business days from the date the form is received. She will copy the CPE's Data and Informational Unit.

Please enter the following information:

Date of request March 6, 2017
Institution Name Master of Science in Finance, Department of Finance and Quantitative Methods, Gatton College of Business and Economics
<p>Rationale for/evidence to support STEM+H status (e.g. curriculum changes that focus on STEM+H, classification as STEM+H in other states)</p> <p>Our MS Finance program has included several courses that are quantitative in nature to warrant a designation under Quantitative Finance (CIP code 27.0305: Financial Mathematics (Quantitative Finance is listed as one of the illustrative examples; see the picture below from National Center for Education Statistics). These courses include: FIN 650 Investments; ECO 491G Applied Econometrics; FIN 685-1&2 Investment Practicum; FIN 630 Financial Modeling and Analysis; FIN 691 Current Issues in Finance: Quantitative Portfolio Management.</p>

Detail for CIP Code 27.0305



Title: Financial Mathematics.

Definition: A program that focuses on the application of mathematics and statistics to the finance industry, including the development, critique, and use of various financial models. Includes instruction in probability theory, statistical analysis, numerical methods, computation and simulation methods, stochastic processes, economics, and financial markets and applications.

Action: New

▼ Crosswalk ⓘ

✓ CIP Title or Definition Changed

CIP 2000		CIP 2010			
Code	Title	Action	✓	Code	Title
		★		27.0305	Financial Mathematics.

▼ Illustrative Examples ⓘ

[Mathematical Finance]

[Quantitative Finance]

[Quantitative and Computational Finance]

More importantly, the Gatton MSF fits the definition of CIP code 27.0305 Financial Mathematics very well. The program focuses on the use of financial models in its courses to solve real world financial problems such as equity and debt valuation, capital budgeting decisions, financial planning, financial risk management, quantitative portfolio management, cost of capital, etc.

Many similar MS Finance programs in other states have STEM designation, such as those at the University of Cincinnati, MIT, and University of North Carolina – Charlotte. See links below:

<https://business.uc.edu/graduate/masters/ms-finance.html>

<http://mitsloan.mit.edu/newsroom/articles/master-of-finance-degree-program-gains-stem-classification/>

<http://mathfinance.uncc.edu/about-program>

Curriculum Content: Please describe the content of the program

The MSF program consists of ten courses and no thesis is required. The ten courses are:

FIN 600 Corporate Financial Policy: A study of financial management from the viewpoint of the corporate financial officer. Areas studied include capital budgeting, capital structure, financing decisions, working capital management, dividend policy, and mergers and acquisitions.

FIN 650 Investments: Analysis of corporate financial statements for investment purposes; the security market; market influences on security prices; effect of interest changes on security prices; and the development of investment programs.

ECO 491G Applied Econometrics: To provide students with a firm foundation in the design and estimation of economic models, empirical analysis of economic relationships, and forecasting. Emphasizes the structure and utilization of economic models.

ACC 621 Understanding Financial Statements: Financial statements communicate information about a business and its operations. Students will gain an understanding of the information being communicated (or not communicated) by the business entity. Emphasis is on the uses of information, rather than its preparation.

FIN 645 Corporate Investment and Financial Policy: Emphasizing both theory and practice, this course is an in-depth study of long-term corporate investment and financing decisions. Topics include valuation, capital budgeting, cost of capital, leasing, dividend policy, capital structure, and mergers and acquisitions.

Fin 685-1&2 Investments Practicum: The course gives students a working knowledge of, and experience applying, the basic principles of value-oriented equity investing. Students manage a real-money equity portfolio, making all buy/sell decisions.

FIN 623 International Financial Management: This course provides an overview of financial management at the international level. Topics covered include: The nature and uses of international financial markets, the financial behavior of multinational corporations, exchange rates, and hedging in international business.

FIN 623 Financial Modeling and Analysis: This course provides students with the skills necessary to apply modern financial theories to real world applications in both corporate finance and investments. Students will get hands-on experience implementing models from areas such as capital budgeting, financial planning, and asset valuation.

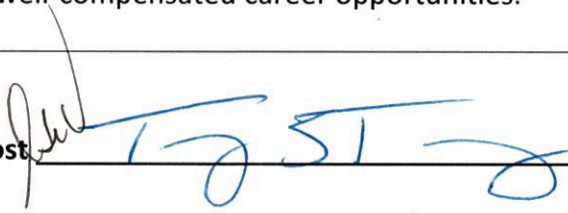
FIN 691 Current Issues in Finance: Quantitative Portfolio Management: This course develops both theoretical and practical knowledge in the area of funds management focusing on advanced techniques in securities valuation including both fundamental and quantitative analysis.

Courses included: FIN 600 Corporate Financial Policy; FIN 650 Investments; ECO 491G Applied Econometrics; ACC 621 Understanding Financial Statements; FIN 685-1&2 Investment Practicum; FIN 623 International Financial Management; FIN 630 Financial Modeling and Analysis; FIN 645 Corporate Investment and Financial Policy; FIN 691 Current Issues in Finance: Quantitative Portfolio Management.

Catalog Description: Please enter the description of the program as listed in the institution's course catalog.

The objective of the program is to respond to the Commonwealth's need for a full-residency Finance program at the graduate level, offering the terminal degree of Master of Science in Finance (MSF). No such program exists in the Commonwealth, despite the great need for highly trained finance professionals. An additional objective is to place students in a position to become employed in the finance industry, which offers significant, well-compensated career opportunities.

University Provost



Date: 3-7-2017

CPE will respond to your request within 10 working days. Once approved, the institution will receive confirmation via email. Newly approved STEM+H programs will be included on the STEM+H list in the academic year.

Brothers, Sheila C

From: Alexander-Snow, Mia
Sent: Friday, March 03, 2017 4:14 PM
To: Brothers, Sheila C
Subject: RE: Proposed Change to CIP for MS Finance

Hello Sheila:

This is a correction to an error with the CIP code assignment. Dr. Troske is not changing any of the curriculum or program content. He is changing the CIP to better define the STEM emphasis.

Thanks for your patience. Let me know if you have additional questions.

Best,
Mia

Mia Alexander-Snow, PhD

Director, Planning and Institutional Effectiveness

Phone: 859-257-2873

Fax: 859-323-3999

Visit the Institutional Effectiveness Website: <http://www.uky.edu/ie>

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From: Brothers, Sheila C
Sent: Friday, March 03, 2017 3:48 PM
To: Alexander-Snow, Mia <mia.alexander-snow@uky.edu>
Subject: RE: Proposed Change to CIP for MS Finance

Do I need to wait on the SACS form to process the program change?

*Office of the Senate Council
Phone: (859) 257-5872*

On Fri, Mar 3, 2017 at 12:36 PM, Troske, Kenneth <ktroske@email.uky.edu> wrote:
Just to clarify, this is a new program that has already been approved, but is not schedule to start until this fall. We did not know that we needed to specify a specific CIP code when the program was approved. We are trying to just rectify this oversight in the original approval process.

Kenneth Troske, PhD

Associate Dean of Graduate Programs and Outreach
Richard W. and Janis H. Furst Endowed Chair in Economics
Gatton College of Business and Economics
University of Kentucky