

Brothers, Sheila

From: Schroeder, Margaret <m.mohr@uky.edu>
Sent: Monday, November 13, 2017 5:19 PM
To: Brothers, Sheila; McCormick, Katherine
Cc: Mirosław Truszczyński
Subject: Proposed New USP between the BS Computer Engineering and MS Computer Science

Proposed New University Scholars Program: BS Computer Engineering and MS Computer Science

This is a recommendation that the University Senate approve the establishment of a new University Scholars Program: BS Computer Engineering and MS Computer Science within the College of Engineering.

Rationale: The demand for students with computing degrees is growing at a rate more than double the national average. The proposed USP program will allow the two departments to collaboratively work together to nurture, encourage, and recruit highly qualified UK undergraduate students. The program will produce students who are better prepared for leadership positions in industry.

There is a pending edited proposal that I will forward shortly.

Thanks!
Margaret

[Margaret J. Mohr-Schroeder, PhD](#) | Associate Professor of STEM Education - Mathematics | [SAPC University Senate Committee Chair](#) | [University Senator/Senate Council Member](#) | [STEM PLUS Program Co-Chair](#) | [Department of STEM Education](#) | [University of Kentucky](#) | www.margaretmohrschroeder.com | [Schedule a Meeting with Me](#)

NEW UNIVERSITY SCHOLARS PROGRAM (USP)

The University Scholars Program (USP) offers students the opportunity and challenge of integrating their undergraduate and graduate courses of study into a single, continuous program leading to both a baccalaureate and master's degree. The student's particular requirements will determine the amount of time needed to complete the program, but the two programs can be completed in less time than that required in a conventional program.

Once approved at the college level, your college will send the proposal to the Graduate Council (GC) for review and approval. (Requirements for the bachelor's degree must remain unchanged, so there is no review by the Undergraduate Council.) After approval by the GC, the GC will send your proposal to the Senate Council office for additional review via a committee and then to the Senate for approval. Once approved by the Senate, the Senate Council office will report approvals to the Provost, Registrar and other appropriate entities, including the contact person. The contact person listed on the form will be informed when the proposal has been sent to committee and other times as appropriate.

1. GENERAL INFORMATION			
1a	Bachelor's major name:	BS Computer Engineering	
1b	Bachelor's degree:	<input type="checkbox"/> Bachelor of Arts	<input checked="" type="checkbox"/> Bachelor of Science
	If "Other," explain:	<input type="checkbox"/> Other	
1c	Bachelor's degree home college:	College of Engineering	
1d	Bachelor's degree home department/school:	Department of Electrical and Computer Engineering	
1e	Graduate major name:	Computer Science	
1f	Graduate degree:	<input type="checkbox"/> Master's of Arts	<input checked="" type="checkbox"/> Master's of Science
	If "Other," explain:	<input type="checkbox"/> Master's of Education	
1g	Graduate degree home college:	College of Engineering	
1h	Graduate degree home department/school:	Computer Science	
1i	Requested effective date:	<input checked="" type="checkbox"/> Semester after approval.	OR <input type="checkbox"/> Specific Date ¹ :
1j	Contact person name:	Mirosław Truszczyński	Email: mirek@cs.uky.edu
			Phone: 7-6738
2. OVERVIEW			
2a	Provide a brief description of the proposed USP. (300 word limit)		
	The Departments of Computer Science and Electrical and Computer Engineering, both in the College of Engineering, offer technical courses supporting a Bachelors of Science Degree in Computer Engineering (BSCPE).		

¹ University Scholars Programs are typically made effective for the semester following approval. No program will be made effective unless all approvals, up through and including University Senate approval, are received.

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The degree is formally conferred by the Department of Electrical and Computer Engineering. The BSCPE degree requires 131 credit hours and includes courses in both Electrical and Computer Engineering and Computer Science. The Department of Computer Science offer an MS degree in Computer Science (MSCS). The degree has a thesis option (plan A) requiring 24 hours of coursework and a thesis; and a project option (plan B) requiring 30 hours of course work and a project. In addition, MSCS students in each option are are required to take four 500-level core courses and earn B or better in each of them. The University Scholars Program will allow qualified students to combine up to twelve hours of work toward their BSCPE degree with 12 hours toward their MSCS degree. To this end, students may use 500-level CS elective courses, as well as 400G-level and 500-level technical elective courses from computer engineering, electrical engineering, mathematics, or other technically-related fields.

2b Explain the need (e.g. market demand). (300 word limit)

Demand for students with computing degrees is growing at a rate more than double the national average. This program allows us to nurture, encourage and reward our top undergraduate students. The program will increase the quality of the graduate students within the MSCS degree program by recruiting the highest quality students from the pool of computer engineering undergraduates. It will also produce students who are better prepared for leadership positions in industry. It is our goal to encourage our students with the most potential to pursue the USP and to work with them to develop a combined BS and MS plan of study that best prepares them for their intended careers.

2c Describe the target audience. (150 word limit)

The goal of the USP is to nurture and retain our most promising undergraduate students through a Master of Science degree. In particular, students who are completing their junior year and have completed at least 90 hours of course work with a minimum GPA in Computer Engineering of 3.5 and an overall GPA of at least 3.2.

3. Basic Requirements

3a Check to confirm that the USP is open to undergraduates with senior standing who have completed at least 90 hours of course work.

3b Undergraduates must have satisfied all UK Core requirements prior to applying. Yes No
If "No," explain. (150 word limit)

The BSCPE program curriculum includes two UK Core classes in the senior year, UK Core - Citizenship in the fall and UK Core - Global Dynamics in the spring. It would be difficult to require these to be completed earlier, and leaving them in the senior year will not have an impact on their ability to be successful in the University Scholars program.

3c Application to the USP is at the end of the student's junior year. Yes No
If "No," explain. (150 word limit)

3d For admission to the USP, the undergraduate GPA is greater than or equal to 3.5 in the student's major (including cross-listed courses) and 3.2 overall. Yes No
If "No," explain. (150 word limit)

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3e	<input checked="" type="checkbox"/> Check box to confirm that application to the program will follow the current procedures for application to the Graduate School, subject to the conditions in questions 3a through 3d, above.
3f	<input checked="" type="checkbox"/> Check box to confirm that the USP is designed so that students will not take more than 16 credit hours per semester. (Permission to exceed that number is subject to approval by the Director of Graduate Studies and Dean of the Graduate School.)

4. Specific Course Requirements

4a	Up to twelve (12) credit hours from the bachelor's degree may be used towards the graduate degree. How many credits from the undergraduate degree will count towards the graduate degree?
	12

4b List below the 400G- and 500-level courses in the bachelor's degree that will count towards the graduate degree. The student must be graded as a graduate student in the courses listed below for the course(s) to count towards the graduate degree.

Prefix & Number	Course Title	Credit Hrs
	400G Technical Electives as defined by the Undergraduate Bulletin for Computer Engineering (currently courses selected from upper-division engineering, mathematics, statistics, computer science, physics, or other technically-related fields).	0 - 3
	500-level CPE, Technical, and Supportive Electives as defined by the Undergraduate Bulletin for Computer Engineering (example courses: CS505, CS515, CS537, CS541, CS570, CS571, CS575)	0-12
	TOTAL NUMBER OF CREDIT HOURS:	max 12 overall

4a.	Does the USP involve prerequisite courses ² or concurrent enrollment ³ in certain courses?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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If "Yes," please list the courses below.

Prefix & Number	Course Title	Credit Hrs	Course Type ⁴
			Select one....
			Select one....

² Prerequisite courses are completed prior to initiation of the USP, i.e. at the undergraduate level.
³ Concurrent enrollment courses are in progress, i.e. in which the student is currently enrolled.
⁴ Use the drop-down list to indicate if the course is a prerequisite or may be taken currently.

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			Select one....
			Select one....
			Select one....
			Select one....
			Select one....
			Select one....
			Select one....
			Select one....

4b Provide the Bulletin language for prerequisite or concurrent enrollment courses.

5. ADMINISTRATION AND ASSESSMENT

5a Describe how the proposed USP will be administered, including admissions, student advising, retention, etc. (150 word limit)

In their junior year, students pursuing a Bachelors of Science in Computer Engineering who meet the following criteria may apply to the BSCPE/MSCS University Scholars Program. (1) The student must have completed at least 90 hours of course work. (2) The applicant must have a GPA in Computer Engineering of at least 3.5 and an overall GPA of at least 3.2. (3) The student must meet the admission standards of the UK Graduate School and the MSCS degree requirements. Students will be advised by the BSCPE Degree Program advisor for the portion of the USP work that applies to the requirements for their BSCPE Degree as well as the Director of Graduate Studies for the MSEE degree program for their MSCS plan of study and course selection.

5b Describe evaluation procedures for the proposed USP. Include how to determine whether the USP is a success or a failure. (250 word limit)

The BSCPE/MSCS University Scholars Program will be reviewed annually by the Chairs of the Computer Science and the Electrical and Computer Engineering Departments, The Director of Graduate Studies for the MSCS Degree Program, and the Director of Undergraduate Studies for the BSCPE Degree Program. The success or failure of the proposed program will be evaluated based on (1) the number of students applying to the program, (2) the number of students successfully completing the program, and (3) the relative quality of the students participating in the USP compared to the overall cohort of MSCS students as well as cohorts of MSCS students that received BSCPE degrees and pursued MSCS degrees but that did not participate in the USP. The relative quality of the student cohorts will be based on GPA and rubrics applied to their MSCS thesis or project.

6. MISCELLANEOUS

6a Is there anything else about the proposed USP that should be mentioned? (150 word limit)

7. APPROVALS/REVIEWS

Document steps in the approval process below.

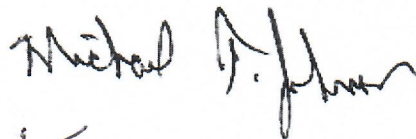
Reviewing Group Name	Date Approved	Contact Person Name/Phone/Email

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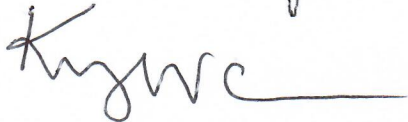
7a	(Within College) In addition to the information below, attach documentation of department and college approval. This typically takes the form of meeting minutes but may also be an email from the unit heads reporting department- and college-level votes.		
	CS Faculty	1/9/2017	Brent Seales / 7-3963 / seales@cs.uky.edu
	ECE Faculty	9/9/2016	Michael Johnson / 7-0717 / mike.johnson@uky.edu
	COE Faculty	3/22/16	/ /
			/ /
7b	(Collaborating and/or Affected Units)		
			/ /
			/ /
			/ /
			/ /
7c	(Senate's Academic Councils)	Date Approved	Contact Person Name
	Health Care Colleges Council (if applicable)		
	Graduate Council		Roshan Nikou



William Brent Seales
Chair, Computer Science



Michael T. Johnson
Chair, Electrical + Computer Engineering



Kimberly W. Anderson
Associate Dean

Brothers, Sheila C

From: Nikou, Roshan
Sent: Wednesday, April 19, 2017 10:56 AM
To: Brothers, Sheila C; Ett, Joanie M; Jackson, Brian A; McCormick, Katherine; Nikou, Roshan; Price, Cleo; Timoney, David M
Cc: Buntin, William J; Bruckner, Geza; Bruckner, Geza; Truszczynski, Mirek; Brown, Christia S; Johnson, Julia M
Subject: Transmittals
Attachments: ICT Masters Required Courses.pdf; UK AT 3+2 program-new.pdf; USP - COE to CS.pdf; STEM Plus MBA Dual Degree Program 2017 (revised 3-1-17).pdf; UPS.pdf; ENG, MFA_Creative Writing, Final, 3_21, 2017.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.

Programs (attached)

Master of Athletic Training

Master of Fine Arts

Master of Information Communication Technology

STEM plus MBA Dual Degree

University Scholars – Computer Science

University Scholars – Civil Engineering

Courses (available through Curriculog)

A-S - 564 - Digital Fabrication Projects (Subtitle Required)

A-S - 567 - Advanced Topics in Digital Fabrication (Subtitle Required)

APP - 500 - Special Topics in Appalachian Studies (Subtitle Required)

AT - 510 - Life-Threatening and Emergency Conditions During Physical Activity

AT - 520 - Management and Administration in Athletic Training

AT - 550 - Evidence-Based Practice in Athletic Training

AT - 590 - Musculoskeletal Anatomical Dissection

AT - 591 - Foundations and pathophysiology of the Musculoskeletal System: Muscle / Tendon and Nerve

AT - 592 - Foundations and Pathophysiology of the Musculoskeletal System for Athletic Trainers:
Articular/Bone/Cartilage

AT - 593 - Foundations and Pathophysiology of the Musculoskeletal System for Athletic Trainers:
Integumentary and Immune Systems

CPH - 684 - STRATEGIC HUMAN RESOURCE MANAGEMENT IN HEALTHCARE

CPH - 783 - Applications in Healthcare Finance and Operations

CPH - 784 - DECISION MAKING IN HEALTH CARE ORGANIZATIONS

EDC - 560 - Literacy Development in the ESL Classroom

ENT 402 – Forest Entomology

FAM - 745 - Families and Children in Play Therapy

MAT 572 – International Merchandising

IPS - 790 - Supervised Research and Study in Integrated Plant and Soil Sciences

PA - 633 - MUNICIPAL SECURITIES

TSL - 560 - Literacy Development in the ESL Classroom



Roshan Nikou, MA

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