1. Call to Order

2. Approval of the October 11, 2022 Senate Minutes (Action)

3. Report of the Chair

4. Special Order
    Darryll J. Pines
    President of the University of Maryland
    2022 State of the Campus Address

5. PCC Proposal to Rename the Certificate of Advanced Study in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (Senate Document #22-23-05) (Action)

6. PCC Proposal to Rename the Master of Science in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (Senate Document #22-23-06) (Action)

7. PCC Proposal to Rename the Ph.D. in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (Senate Document #22-23-07) (Action)

8. PCC Proposal to Rename the Post-Baccalaureate Certificate in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (Senate Document #22-23-08) (Action)

9. PCC Proposal to Rename the Master of Education in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (Senate Document #22-23-09) (Action)

10. PCC Proposal to Rename the Master of Science in "Business and Management" to "Management Studies" (Senate Document #22-23-10) (Action)

11. PCC Proposal to Rename the Bachelor of Science in "Embedded Systems and Internet of Things" to "Cyber-Physical Systems Engineering" (Senate Document #22-23-11) (Action)

12. Special Order
    Carlo Colella
    Vice President and Chief Administrative Officer
    Presentation on Concur

13. New Business

14. Adjournment

CALL TO ORDER

Senate Chair Newman called the meeting to order at 3:18 p.m. She explained the procedures for the meeting and provided brief instructions on using the PointSolutions platform for voting.

APPROVAL OF THE SEPTEMBER 7, 2022 SENATE MINUTES

Chair Newman asked if there were any additions or corrections to the minutes of the September 7, 2022, meeting; hearing none, she declared the minutes approved as distributed.

REPORT OF THE CHAIR

BOR Staff Awards
Chair Newman announced that the Staff Affairs Committee is currently accepting nominations for this year's Board of Regents' Staff Awards (BORSA). She reminded Senators that BORSA is the highest System-wide recognition of the exceptional work done by staff members across the University System of Maryland (USM). She explained guidelines and eligibility requirements to nominate staff members. She stated that nomination packets are due to the Staff Affairs Committee by Friday, November 11 and that detailed instructions can be found on the Senate website.

Approval of the Interim University of Maryland Non-Discrimination Policy and Procedures (Senate Document #22-23-04)
Chair Newman shared that on September 30th, President Pines approved revisions to the Interim University of Maryland Non-Discrimination Policy and Procedures (Senate Document #22-23-04). She explained that new state law changes, that were made effective on October 1, 2022, required revising definitions in the University of Maryland Non-Discrimination Policy and Procedures. The University of Maryland policy was revised to clarify current procedures related to the investigation and adjudication processes and update current University Vice President titles. She explained that a comprehensive review of the Non-Discrimination Policy and Procedure is expected to be done in the next year.

Volunteers for the Nominations Committee
Chair Newman stated that outgoing Senators would soon receive an email about volunteering for the Senate Nominations Committee.

Newman stated that every year, the Nominations Committee solicits nominations for the Senate Chair-Elect and membership on the Executive Committee, the Committee on Committees, and other University-wide committees and councils. She stated that the Senate relies on the good judgment of the members of the Nominations Committee to present candidates that reflect the quality and diversity of the campus community. Newman explained that the committee would meet between January and April.

Newman noted that those who are interested in serving on the committee should look for an email with a link to a Google form, and complete the link as soon as possible. She added that those

interested may contact the Senate Office Staff for additional information or assistance. Newman stated that the Senate will vote on the Nominations Committee's membership in December.

SPECIAL ORDER OF THE DAY

Jack Blanchard
Associate Provost for Enterprise Resource Planning
Elevate Project Update

Newman welcomed Jack Blanchard, Associate Provost for Enterprise Resource Planning.

Blanchard explained that Elevate's goal is to modernize the obsolete Enterprise Resource Planning (ERP) system to better meet the complex needs of the University. He elaborated further on the goals of the program to provide a positive user experience for students, staff, and faculty; to increase efficiency and effectiveness; to accurately collect, report, and analyze data; to ensure data security and privacy; and to make sure that ERP systems can be easily maintained and updated.

Blanchard presented an overview of the timeline of Workday. He provided specifics on human capital management, budgeting, and student workstream implementation over the next four years.

Blanchard shared that staff and faculty engagement is a key in ensuring that Workday will be successfully implemented. He explained that Project Implementation Teams had been implemented across the University to ensure representation. Blanchard shared that a Faculty Advisory Committee was established to ensure that the Elevate project considered the unique perspectives and needs of faculty users.

Blanchard gave an overview of the training activities timeline for Workday. He shared that Elevate is currently developing instructional and training materials. He also shared some challenges that the Elevate program will be facing in spring 2023.

Blanched passed along a note to all senators to discuss planning for the transition to Workday with their local departmental leadership. He shared that Elevate has town hall meetings every semester, the next taking place on November 2nd and 3rd. He also shared that Elevate gives monthly functional overviews, monthly newsletters, and has a website for more information.

Blanchard noted that student implementation is the highest priority, stating that students are key stakeholders. He announced that five student interns had been hired over the summer. He also announced that a lead staff position had been hired in September. He noted that student input is necessary to understand current problems.

Blanchard informed the Senate of next steps and how to stay connected and to prepare for the transition.

Newman thanked Blanchard and opened the floor for questions.

Senators were curious about what resources and processes would be put in place to manage various user experience issues post implementation.

Blanchard responded that they had received approval from leadership to develop a support organization for Workday. He shared that this organization will consist of several full-time staff to work on continually monitoring and improving unforeseen issues.

Senators suggested that Elevate also learn from the recent Concur rollout and that they take time to consult with campus constituencies before implementation.

Blanchard noted that Elevate had engaged, early in their process, with several campus constituencies for feedback.

Senators asked for a clarification of what the "cloud" is.

Blanchard explained that the cloud comes from servers that Workday is responsible for and not physical mainframes on campus.

Newman thanked Blanchard again for his presentation.

SPECIAL ORDER OF THE DAY

Will Reed
Chair of the Plan of Organization Review Committee
PORC Status Overview

Chair Newman stated that distributed in the materials was the original Plan of Organization Review Committee (PORC) charge. She informed the Senate that at the last Senate Executive Committee (SEC) meeting, the committee voted to extend the deadline of PORC until November of 2023. She added that the SEC also voted to charge PORC with conducting the review on whether or not to codify the Special Committee on University Finance (SCUF) into a formal Senate body.

Chair Newman stated that given these recent changes, the Chair of PORC, Will Reed, would be giving Senators a brief update on the status of PORC.

Chair Newman welcomed Will Reed and invited him to provide his presentation.

Reed thanked Chair Newman and provided a brief history and overview of PORC. He gave Senators an overview of how often PORC convenes, the issues that PORC generally is charged to review, and why PORC has been convened earlier than its usual timeline. He listed the members on the committee, noting in particular the diversity of constituencies represented by the committee.

Reed gave an overview and history of the areas that PORC had been charged with reviewing, which included the current Plan of Organization, revisions to the Plan of Organization, apportionment, councils, and principles surrounding shared governance. He gave an overview and content of PORC meetings that occurred during the spring of 2022 and that three subcommittees were formed to discuss the issues of apportionment, councils, and shared governance which met throughout the summer.

Reed shared that due to recent transitions in the Senate office that work has been currently put on hold. He informed Senators of next steps and the updated timelines of PORC.

Senators asked if at any time during PORC's review if they were going to survey or solicit Senate members on any of their ideas.

Reed stated that there had not been any plans made yet to solicit Senators. He explained the logic behind the composition of the committee but that he is not opposed to the idea and that guidance from Senate leadership would have to be sought to see if this was feasible.

Newman thanked Reed again for his presentation.

NEW BUSINESS

Chair Newman asked Senators if there was any new business.

Senator Blackwell, Exempt Staff, Office of Community Engagement shared the Office of Community Engagement paired with the city of College Park to host the 11th annual Good Neighbor Day. She invited all to join on November 12th from 8:30a.m.-12:00p.m. More information can be found at oce.umd.edu.

Senator Lekic, TTK Faculty, College of Computer, Mathematical, and Natural Sciences shared a concern about Concur and asked what the Senate's role is when implementing administrative procedures.

Newman thanked Senator Lekic for the comment and stated that a Concur presentation would happen at the November 2, 2022 Senate meeting. She shared that the Senate does not have a role in implementing administrative procedures that are not policies.

Senator Ram-Andriessens, Exempt Staff, University Human Resources invited all to the USM wide professional development conference from October 17-22, 2022. The conference will offer tracks of personal development; professional development; diversity, equity, and inclusion; leadership; and wellness. She went on to say that the professional development was open to staff, faculty, graduate and undergraduate students. Senator Ram-Andriessens provided the registration link in the Zoom chat: https://www.usmd.edu/learning-and-talent/PDWeek2022.

ADJOURNMENT

The meeting was adjourned at 4:15 p.m.

Rename the Certificate of Advanced Study in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (PCC 22004)

PRESENTED BY	**Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee**
REVIEW DATES	**SEC – October 17, 2022	SENATE – November 2, 2022**
VOTING METHOD	**In a single vote**
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	**Senate, President, USM Chancellor, and the Maryland Higher Education Commission**

ISSUE

The College of Education's Department of Human Development and Quantitative Methodology proposes to change the name of its Certificate of Advanced Study in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics". After determining that the current name no longer accurately reflects the full scope of the program's activities, the faculty voted unanimously to change the program's name. Incorporating "Quantitative Methodology" into the program title reflects the broader applications of the skills and knowledge students gain from the program, whereas retaining "Measurement and Statistics" in the title links the program to its past identity as a program that applies methods research to educational problems. The program faculty have detected some confusion in the past several years as different constituents refer to the program in different ways, some referring to it by its technical name of "Measurement, Statistics, and Evaluation," or its traditional acronym EDMS, and some referring to it as "Quantitative Methodology," because of its alignment with the name of the department. The new title, "Quantitative Methodology: Measurement and Statistics," will rebrand the program under one title that reflects its traditional, current, and future activities. Separate proposals have been submitted in order to rename all of the graduate programs in "Measurement, Statistics, and Evaluation" to "Quantitative Methodology: Measurement and Statistics".

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Ji Seung Yang, from the Department of Human Development and Quantitative Methodology, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the coursework and activities of the program.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

359: QUANTITATIVE METHODOLOGY: MEASUREMENT AND STATISTICS (Z904)

In Workflow

1. D-HDQM PCC Chair (djbolger@umd.edu)
2. D-HDQM Chair (psteiner@umd.edu)
3. EDUC Curriculum Manager (ejohnson@umd.edu; kgriff29@umd.edu; mpeercy@umd.edu)
4. EDUC PCC Chair (ejohnson@umd.edu; djbolger@umd.edu)
5. EDUC Dean (kgriff29@umd.edu; mpeercy@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Graduate School Curriculum Manager (jfarman@umd.edu)
8. Graduate PCC Chair (jfarman@umd.edu)
9. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
10. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
11. University Senate Chair (mcolson@umd.edu)
12. President (mcolson@umd.edu)
13. Chancellor (mcolson@umd.edu)
14. MHEC (mcolson@umd.edu)
15. Provost Office (mcolson@umd.edu)
16. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Mon, 29 Nov 2021 17:29:35 GMT
Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. Thu, 09 Dec 2021 20:28:21 GMT
Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
3. Thu, 09 Dec 2021 21:01:43 GMT
Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
4. Thu, 16 Dec 2021 14:23:20 GMT
Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
5. Thu, 16 Dec 2021 14:47:59 GMT
Donald Bolger (djbolger): Approved for EDUC PCC Chair
6. Fri, 14 Jan 2022 17:44:19 GMT
Laura Stapleton (lstaplet): Approved for EDUC Dean
7. Wed, 26 Jan 2022 14:17:31 GMT
Michael Colson (mcolson): Rollback to Initiator
8. Fri, 25 Feb 2022 20:53:06 GMT
Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
9. Tue, 01 Mar 2022 17:12:16 GMT
Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
10. Wed, 02 Mar 2022 19:20:23 GMT
Elizabeth Johnson (ejohnson): Rollback to Initiator
11. Tue, 05 Apr 2022 19:19:49 GMT
Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
12. Tue, 05 Apr 2022 19:52:47 GMT
Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
13. Mon, 02 May 2022 18:13:46 GMT
Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
14. Mon, 02 May 2022 18:19:57 GMT
Donald Bolger (djbolger): Approved for EDUC PCC Chair
15. Tue, 10 May 2022 21:11:57 GMT
Laura Stapleton (lstaplet): Approved for EDUC Dean
16. Fri, 05 Aug 2022 19:08:50 GMT

Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
17. Fri, 30 Sep 2022 12:54:35 GMT
    Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
18. Fri, 30 Sep 2022 12:57:54 GMT
    Jason Farman (jfarman): Approved for Graduate PCC Chair
19. Tue, 04 Oct 2022 14:32:11 GMT
    Steve Fetter (sfetter): Approved for Dean of the Graduate School
20. Tue, 04 Oct 2022 20:35:53 GMT
    Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Oct 18, 2019 by William Bryan (wbryan)

Date Submitted: Tue, 05 Apr 2022 18:20:36 GMT

Viewing: 359 : Quantitative Methodology: Measurement and Statistics (Z904)
Last approved: Fri, 18 Oct 2019 13:01:49 GMT
Last edit: Fri, 10 Jun 2022 21:04:55 GMT

Changes proposed by: Jeffrey Harring (harring)

Proposed Action

Rename Program

Program Name

Quantitative Methodology: Measurement and Statistics (Z904)

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Post-Baccalaureate Certificate

Delivery Method

On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code

Z904

MHEC Inventory Program

Measurement, Statistics and Evaluation

CIP Code

130603 - Educational Statistics and Research Methods.

HEGIS

082400

Degree(s) Awarded

Degree Awarded
Certificate of Advanced Study

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the Department of Human Development and Quantitative Methodology (HDQM) in the College of Education is proposing to change its program's name to Quantitative Methodology: Measurement and Statistics (QMMS).

(PCC Log Number 22004)

Program and Catalog Information

Catalog Program Requirements:

The Certificate in Measurement, Statistics and Evaluation (https://academiccatalog.umd.edu/graduate/programs/measurement-statistics-evaluation-z019/) is designed to provide advanced training in quantitative methods for graduate students majoring in other doctoral programs. The certificate requires a minimum of 21 graduate credit hours. In addition, an advisor must be selected from members of the Measurement, Statistics and Evaluation faculty.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any certificate student who entered the certificate program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all certificate students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Currently, this certificate program is inactive but we wanted it included under the umbrella of the program's new name.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially.
At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but

nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Reviewer Comments

Michael Colson (mcolson) (Wed, 26 Jan 2022 14:17:31 GMT): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (Wed, 02 Mar 2022 19:20:23 GMT): Rollback: Please reach out to Dr. Bolger and Mike Colson for any assistance.

Key: 359

Program Change Request

Date Submitted: 04/05/22 2:20 pm

Viewing: **359 : <u>Quantitative Methodology: Measurement</u> ~~Measurement, Statistics~~ and Statistics ~~Evaluation~~ (Z904)**

Last approved: 10/18/19 9:01 am

Last edit: 06/10/22 5:04 pm

Changes proposed by: Jeffrey Harring (harring)

Catalog Pages Using this Program

Measurement, Statistics and Evaluation, Certificate of Advanced Study (C.A.S.)

Proposed Action	Rename Program
Program Name	

In Workflow

1. **D-HDQM PCC Chair**
2. **D-HDQM Chair**
3. **EDUC Curriculum Manager**
4. **EDUC PCC Chair**
5. **EDUC Dean**
6. **Academic Affairs Curriculum Manager**
7. **Graduate School Curriculum Manager**
8. **Graduate PCC Chair**
9. **Dean of the Graduate School**
10. **Senate PCC Chair**
11. **University Senate Chair**
12. President
13. Chancellor
14. MHEC
15. Provost Office
16. Graduate Catalog Manager

Approval Path

1. 11/29/21 12:29 pm
   Penny Gomes
   (pengo): Approved
   for D-HDQM
   Curriculum
   Manager
2. 12/09/21 3:28 pm
   Donald Bolger
   (djbolger):

Approved for D-HDQM PCC Chair

3. 12/09/21 4:01 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

4. 12/16/21 9:23 am Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

5. 12/16/21 9:47 am Donald Bolger (djbolger): Approved for EDUC PCC Chair

6. 01/14/22 12:44 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

7. 01/26/22 9:17 am Michael Colson (mcolson): Rollback to Initiator

8. 02/25/22 3:53 pm Donald Bolger (djbolger): Approved for D-HDQM PCC Chair

9. 03/01/22 12:12 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

10. 03/02/22 2:20 pm Elizabeth Johnson (ejohnson): Rollback to Initiator

11. 04/05/22 3:19 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

12. 04/05/22 3:52 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

13. 05/02/22 2:13 pm Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

14. 05/02/22 2:19 pm Donald Bolger (djbolger): Approved for EDUC PCC Chair

15. 05/10/22 5:11 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

16. 08/05/22 3:08 pm Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager

17. 09/30/22 8:54 am Jason Farman (jfarman): Approved for Graduate School Curriculum Manager

18. 09/30/22 8:57 am Jason Farman (jfarman): Approved for Graduate PCC Chair

19. 10/04/22 10:32 am Steve Fetter

(sfetter): Approved
for Dean of the
Graduate School

20. 10/04/22 4:35 pm
Piotr Swistak
(pswistak):
Approved for
Senate PCC Chair

History

1. Sep 16, 2019 by
aambrosi
2. Oct 18, 2019 by
William Bryan
(wbryan)

Quantitative Methodology: Measurement ~~Measurement, Statistics~~ and Statistics ~~Evaluation~~ (Z904)

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023
Program Level	Graduate Program
Program Type	Post-Baccalaureate Certificate
Delivery Method	On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code	Z904
MHEC Inventory Program	Measurement, Statistics and Evaluation
CIP Code	130603 - Educational Statistics and Research Methods.

HEGIS   082400

MHEC Recognized
Area(s) of
Concentration

Degree(s) Awarded

Degree Awarded
Certificate of Advanced Study

If other, new
degree award:

Proposal Contact
   Jeff Harring

Proposal Summary
   The program formally known as Measurement, Statistics and Evaluation (EDMS) in the
   Department of Human Development and Quantitative Methodology (HDQM) in the College of
   Education is proposing to change its program's name to Quantitative Methodology:
   Measurement and Statistics (QMMS).

   (PCC Log Number 22004)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of
concentration or specializations that will be offered.

Catalog Program Requirements:
The Certificate in Measurement, Statistics and Evaluation is designed to provide advanced training in quantitative
methods for graduate students majoring in other doctoral programs. The certificate requires a minimum of 21
graduate credit hours. In addition, an advisor must be selected from members of the Measurement, Statistics and
Evaluation faculty.

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through
the program to completion. It should be clear the length of time it will take for a typical student to graduate. For
undergraduate programs, this should be the four-year plan.

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any certificate student who entered the certificate program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all certificate students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Currently, this certificate program is inactive but we wanted it included under the umbrella of the program's new name.

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially. At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

Administrative
Documents

Reviewer
Comments

Michael Colson (mcolson) (01/26/22 9:17 am): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (03/02/22 2:20 pm): Rollback: Please reach out to Dr. Bolger and
Mike Colson for any assistance.

Key: 359

Rename the Master of Science in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (PCC 22005)

PRESENTED BY	Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee
REVIEW DATES	SEC – October 17, 2022	SENATE – November 2, 2022
VOTING METHOD	In a single vote
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	Senate, President, USM Chancellor, and the Maryland Higher Education Commission

ISSUE

The College of Education's Department of Human Development and Quantitative Methodology proposes to change the name of its Master of Science in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics". After determining that the current name no longer accurately reflects the full scope of the program's activities, the faculty voted unanimously to change the program's name. Incorporating "Quantitative Methodology" into the program title reflects the broader applications of the skills and knowledge students gain from the program, whereas retaining "Measurement and Statistics" in the title links the program to its past identity as a program that applies methods research to educational problems. The program faculty have detected some confusion in the past several years as different constituents refer to the program in different ways, some referring to it by its technical name of "Measurement, Statistics, and Evaluation," or its traditional acronym EDMS, and some referring to it as "Quantitative Methodology," because of its alignment with the name of the department. The new title, "Quantitative Methodology: Measurement and Statistics," will rebrand the program under one title that reflects its traditional, current, and future activities. Separate proposals have been submitted in order to rename all of the graduate programs in "Measurement, Statistics, and Evaluation" to "Quantitative Methodology: Measurement and Statistics".

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Ji Seung Yang, from the Department of Human Development and Quantitative Methodology, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the coursework and activities of the program.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

360: QUANTITATIVE METHODOLOGY: MEASUREMENT AND STATISTICS (QMMS-M.S.)

In Workflow

1. D-HDQM PCC Chair (djbolger@umd.edu)
2. D-HDQM Chair (psteiner@umd.edu)
3. EDUC Curriculum Manager (ejohnson@umd.edu; kgriff29@umd.edu; mpeercy@umd.edu)
4. EDUC PCC Chair (ejohnson@umd.edu; djbolger@umd.edu)
5. EDUC Dean (kgriff29@umd.edu; mpeercy@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Graduate School Curriculum Manager (jfarman@umd.edu)
8. Graduate PCC Chair (jfarman@umd.edu)
9. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
10. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
11. University Senate Chair (mcolson@umd.edu)
12. President (mcolson@umd.edu)
13. Chancellor (mcolson@umd.edu)
14. MHEC (mcolson@umd.edu)
15. Provost Office (mcolson@umd.edu)
16. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Mon, 29 Nov 2021 17:29:33 GMT
   Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. Thu, 09 Dec 2021 20:28:23 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
3. Thu, 09 Dec 2021 21:01:54 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
4. Thu, 16 Dec 2021 14:23:26 GMT
   Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
5. Thu, 16 Dec 2021 14:48:02 GMT
   Donald Bolger (djbolger): Approved for EDUC PCC Chair
6. Fri, 14 Jan 2022 17:44:24 GMT
   Laura Stapleton (lstaplet): Approved for EDUC Dean
7. Wed, 26 Jan 2022 14:17:57 GMT
   Michael Colson (mcolson): Rollback to Initiator
8. Fri, 25 Feb 2022 20:53:13 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
9. Tue, 01 Mar 2022 17:13:20 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
10. Wed, 02 Mar 2022 19:20:53 GMT
    Elizabeth Johnson (ejohnson): Rollback to Initiator
11. Tue, 05 Apr 2022 19:19:51 GMT
    Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
12. Tue, 05 Apr 2022 19:52:53 GMT
    Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
13. Mon, 02 May 2022 18:13:51 GMT
    Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
14. Mon, 02 May 2022 18:20:01 GMT
    Donald Bolger (djbolger): Approved for EDUC PCC Chair
15. Tue, 10 May 2022 21:12:01 GMT
    Laura Stapleton (lstaplet): Approved for EDUC Dean
16. Fri, 05 Aug 2022 19:08:58 GMT

Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
17. Fri, 30 Sep 2022 12:54:43 GMT
Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
18. Fri, 30 Sep 2022 12:58:01 GMT
Jason Farman (jfarman): Approved for Graduate PCC Chair
19. Tue, 04 Oct 2022 14:31:29 GMT
Steve Fetter (sfetter): Approved for Dean of the Graduate School
20. Tue, 04 Oct 2022 20:39:57 GMT
Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Sep 16, 2019 by aambrosi
3. Dec 15, 2020 by Jeffrey Harring (harring)

Date Submitted: Tue, 05 Apr 2022 18:20:26 GMT

Viewing: 360 : Quantitative Methodology: Measurement and Statistics (QMMS-M.S.)
Last approved: Tue, 15 Dec 2020 16:22:25 GMT
Last edit: Fri, 10 Jun 2022 21:05:17 GMT

Changes proposed by: Jeffrey Harring (harring)

Proposed Action

Rename Program

Program Name

Quantitative Methodology: Measurement and Statistics (QMMS-M.S.)

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Master's

Delivery Method

On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code

EDMS

MHEC Inventory Program

Measurement, Statistics and Evaluation

Degree(s) Awarded

Degree Awarded
Master of Science

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the Department of Human Development and Quantitative Methodology (HDQM) in the College of Education is proposing to change its program's name to Quantitative Methodology: Measurement and Statistics.

(PCC Log Number 22005)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.

The M.S. degree program is designed to provide balanced intermediate level graduate training in quantitative methods for students preparing for a variety of positions in government, educational institutions, and private industry. Proximity to Washington, D.C., provides opportunities for students to engage in a variety of academic and professional experiences.

The program requires a minimum of 30 credit hours in courses acceptable for credit toward a graduate degree. At least 18 must be selected from courses numbered 600 or above, combining content from statistics, measurement, evaluation, and related fields outside of the Department (a maximum of 6 outside hours).

Courses within the program are selected from offerings of Measurement, Statistics and Evaluation program and other departments of the University. A program for a student will be structured to take into account the background and future aims of the individual. There is a common core of courses comprised of:

EDMS 623 Applied Measurement: Issues and Practices (3)

EDMS 646 General Linear Models I (3)

EDMS 647 Causal Inference and Evaluation Methods (3)

EDMS 651 General Linear Models II (3)

EDMS 655 Introduction to Multilevel Modeling (3)

EDMS 657 Exploratory Latent and Composite Variable Methods (3)

EDMS 724 Modern Measurement Theory (3)

Additional elective coursework completes the 30 credit hours. A written comprehensive examination based on the first four courses of the core (646, 651, 623, 647) is required. The Graduate School allows transfer of up to six credits of appropriate prior graduate work. Both thesis and non-thesis options are available in the Master of Science program. All coursework applied toward completion of the degree must be completed in a five year period. The program does not offer the Master of Education degree.

Catalog Program Requirements:

Thesis or Non-thesis option: 30 credits required

The Measurement, Statistics and Evaluation M.S. degree program requires a minimum of 30 credit hours. Both thesis and non-thesis options are available. A written comprehensive examination is required for both options and a research paper is required for the non-thesis option.

Course	Title	Credits
Required courses:		
EDMS623	Applied Measurement: Issues and Practices	3
EDMS646	General Linear Models I	3
EDMS647	Causal Inference and Evaluation Methods	3
EDMS651	General Linear Models II	3
EDMS655	Introduction to Multilevel Modeling	3
EDMS657	Exploratory Latent and Composite Variable Methods	3
EDMS724	Modern Measurement Theory	3

Thesis or Non-Thesis Requirements

Select one of the following:		9
Thesis:		
EDMS799	Master's Thesis Research	
Elective		
Non-Thesis:		
Electives		
Total Credits		**30**

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

The proposed Masters of Science degree program will be operationalized no differently than the current Masters of Arts degree. It is a 30 credit hour (10 course) degree program. A student going full time could theoretically finish in 1.5 years although our experience is that a typical student will graduate in 2 years.

1st Semester: EDMS 646, EDMS 623, EDMS 626 (elective)

2nd semester: EDMS 651, EDMS 647, EDMS 724

3rd semester: EDMS 657, EDMS 655, and (comprehensive exam)

4th semester: EDMS 722, EDMS elective, (capstone paper)

A typical student would graduate at the end of their second year.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any master's degree student who entered the MS program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all MS students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on his/her diploma.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially.
At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

Proposed-Name-Change-Document-MS.docx

Reviewer Comments

Michael Colson (mcolson) (Wed, 26 Jan 2022 14:17:57 GMT): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (Wed, 02 Mar 2022 19:20:53 GMT): Rollback: Please reach out to Dr. Bolger and Mike Colson for any assistance.

Key: 360

Program Change Request

Date Submitted: 04/05/22 2:20 pm

Viewing: **360 : <ins>Quantitative Methodology: Measurement</ins> ~~Measurement, Statistics~~ and Statistics (QMMS-M.S.)** ~~Evaluation (EDMS-M.S.)~~

Last approved: 12/15/20 11:22 am

Last edit: 06/10/22 5:05 pm

Changes proposed by: Jeffrey Harring (harring)

Catalog Pages Using this Program

[Measurement, Statistics and Evaluation, Master of Science (M.S.)](#)

Proposed Action	<ins>Rename Program</ins> ~~Curriculum Change~~
Program Name	

In Workflow

1. **D-HDQM PCC Chair**
2. **D-HDQM Chair**
3. **EDUC Curriculum Manager**
4. **EDUC PCC Chair**
5. **EDUC Dean**
6. **Academic Affairs Curriculum Manager**
7. **Graduate School Curriculum Manager**
8. **Graduate PCC Chair**
9. **Dean of the Graduate School**
10. **Senate PCC Chair**
11. **University Senate Chair**
12. President
13. Chancellor
14. MHEC
15. Provost Office
16. Graduate Catalog Manager

Approval Path

1. 11/29/21 12:29 pm Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. 12/09/21 3:28 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

3. 12/09/21 4:01 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

4. 12/16/21 9:23 am Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

5. 12/16/21 9:48 am Donald Bolger (djbolger): Approved for EDUC PCC Chair

6. 01/14/22 12:44 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

7. 01/26/22 9:17 am Michael Colson (mcolson): Rollback to Initiator

8. 02/25/22 3:53 pm Donald Bolger (djbolger): Approved for D-HDQM PCC Chair

9. 03/01/22 12:13 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

10. 03/02/22 2:20 pm Elizabeth Johnson (ejohnson): Rollback to Initiator

11. 04/05/22 3:19 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

12. 04/05/22 3:52 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

13. 05/02/22 2:13 pm Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

14. 05/02/22 2:20 pm Donald Bolger (djbolger): Approved for EDUC PCC Chair

15. 05/10/22 5:12 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

16. 08/05/22 3:08 pm Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager

17. 09/30/22 8:54 am Jason Farman (jfarman): Approved for Graduate School Curriculum Manager

18. 09/30/22 8:58 am Jason Farman (jfarman): Approved for Graduate PCC Chair

19. 10/04/22 10:31 am Steve Fetter

(sfetter): Approved for Dean of the Graduate School

20. 10/04/22 4:39 pm Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Sep 16, 2019 by aambrosi
3. Dec 15, 2020 by Jeffrey Harring (harring)

Quantitative Methodology: Measurement Measurement, Statistics and Statistics (QMMS-M.S.) Evaluation (EDMS-M.S.)

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023 2020-2021
Program Level	Graduate Program
Program Type	Master's
Delivery Method	On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code	EDMS
MHEC Inventory Program	Measurement, Statistics and Evaluation

CIP Code

HEGIS

MHEC Recognized

Area(s) of

Concentration

Degree(s) Awarded

Degree Awarded
Master of Science

If other, new

degree award:

Proposal Contact

Jeff ~~Jeffrey~~ Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in ~~program within~~ the Department of Human Development and Quantitative Methodology (HDQM) in the College of Education is proposing to ~~requesting a~~ change its program's name to Quantitative Methodology: ~~in Masters degree designation FROM Masters of Arts (M.A.) TO Masters of Science (M.S.)~~ Measurement and Statistics.

(PCC Log Number 22005)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.

The M.S. degree program is designed to provide balanced intermediate level graduate training in quantitative methods for students preparing for a variety of positions in government, educational institutions, and private industry. Proximity to Washington, D.C., provides opportunities for students to engage in a variety of academic and professional experiences.

The program requires a minimum of 30 credit hours in courses acceptable for credit toward a graduate degree. At least 18 must be selected from courses numbered 600 or above, combining content from statistics, measurement, evaluation, and related fields outside of the Department (a maximum of 6 outside hours).

Courses within the program are selected from offerings of Measurement, Statistics and Evaluation program and other departments of the University. A program for a student will be structured to take into account the background and future aims of the individual. There is a common core of courses comprised of:

EDMS 623 Applied Measurement: Issues and Practices (3)
EDMS 646 General Linear Models I (3)
EDMS 647 Causal Inference and Evaluation Methods (3)
EDMS 651 General Linear Models II (3)
EDMS 655 Introduction to Multilevel Modeling (3)
EDMS 657 Exploratory Latent and Composite Variable Methods (3)
EDMS 724 Modern Measurement Theory (3)

Additional elective coursework completes the 30 credit hours. A written comprehensive examination based on the first four courses of the core (646, 651, 623, 647) is required. The Graduate School allows transfer of up to six credits of appropriate prior graduate work. Both thesis and non-thesis options are available in the Master of Science program. All coursework applied toward completion of the degree must be completed in a five year period. The program does not offer the Master of Education degree.

Catalog Program Requirements:

Thesis or Non-thesis option: 30 credits required

The Measurement, Statistics and Evaluation M.S. degree program requires a minimum of 30 credit hours. Both thesis and non-thesis options are available. A written comprehensive examination is required for both options and a research paper is required for the non-thesis option.

Course	Title	Credits
Required courses:		
EDMS623	Applied Measurement: Issues and Practices	3
EDMS646	General Linear Models I	3
EDMS647	Causal Inference and Evaluation Methods	3
EDMS651	General Linear Models II	3
EDMS655	Introduction to Multilevel Modeling	3
EDMS657	Exploratory Latent and Composite Variable Methods	3
EDMS724	Modern Measurement Theory	3

Thesis or Non-Thesis Requirements

Course	Title	Credits
Select one of the following:		9
Thesis:		
EDMS799	Master's Thesis Research	
	Elective	
Non-Thesis:		
	Electives	
Total Credits		30

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

The proposed Masters of Science degree program will be operationalized no differently than the current Masters of Arts degree. It is a 30 credit hour (10 course) degree program. A student going full time could theoretically finish in 1.5 years although our experience is that a typical student will graduate in 2 years.

1st Semester: EDMS 646, EDMS 623, EDMS 626 (elective)

2nd semester: EDMS 651, EDMS 647, EDMS 724

3rd semester: EDMS 657, EDMS 655, and (comprehensive exam)

4th semester: EDMS 722, EDMS elective, (capstone paper)

A typical student would graduate at the end of their second year.

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any master's degree student who entered the MS program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all MS students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on his/her diploma. ~~The proposed Masters degree change would have no perceived or real impact on current Masters students enrolled in our M.A.degree program.~~

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially. At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments
  [Proposed-Name-Change-Document-MS.docx](#)

Administrative
Documents

Reviewer
Comments

Michael Colson (mcolson) (01/26/22 9:17 am): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (03/02/22 2:20 pm): Rollback: Please reach out to Dr. Bolger and
Mike Colson for any assistance.

Key: 360

Doctoral students are required to complete 66 credits including 12 credits of EDMS899 and 21 credits of electives.

The Ph.D. program requires both preliminary and comprehensive examinations; the comprehensive examination is designed to assess broad, integrated understanding as well as the student's specialization. All students are expected to engage in research. Measurement, Statistics and Evaluation does not currently offer the Ed.D. degree.

The required course list obtained from the Graduate Catalog will not change with the exception of the 4-letter acronym to QMMS. This will occur at a secondary phase of the renaming process in AY 2022-2023.

Lastly, on the online form to change program's name, we plan to change the 4-letter acronym from EDMS (current) to QMMS (newly proposed acronym). There was not an opportunity to change this line item on the online form, so I am making this explicit here.

Rename the Ph.D. in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (PCC 22006)

PRESENTED BY	**Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee**
REVIEW DATES	**SEC – October 17, 2022	SENATE – November 2, 2022**
VOTING METHOD	**In a single vote**
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	**Senate, President, USM Chancellor, and the Maryland Higher Education Commission**

ISSUE

The College of Education's Department of Human Development and Quantitative Methodology proposes to change the name of its doctoral program in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics". After determining that the current name no longer accurately reflects the full scope of the program's activities, the faculty voted unanimously to change the program's name. Incorporating "Quantitative Methodology" into the program title reflects the broader applications of the skills and knowledge students gain from the program, whereas retaining "Measurement and Statistics" in the title links the program to its past identity as a program that applies methods research to educational problems. The program faculty have detected some confusion in the past several years as different constituents refer to the program in different ways, some referring to it by its technical name of "Measurement, Statistics, and Evaluation," or its traditional acronym EDMS, and some referring to it as "Quantitative Methodology," because of its alignment with the name of the department. The new title, "Quantitative Methodology: Measurement and Statistics," will rebrand the program under one title that reflects its traditional, current, and future activities. Separate proposals have been submitted in order to rename all of the graduate programs in "Measurement, Statistics, and Evaluation" to "Quantitative Methodology: Measurement and Statistics".

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Ji Seung Yang, from the Department of Human Development and Quantitative Methodology, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the coursework and activities of the program.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

361: QUANTITATIVE METHODOLOGY: MEASUREMENT AND STATISTICS

In Workflow

1. D-HDQM PCC Chair (djbolger@umd.edu)
2. D-HDQM Chair (psteiner@umd.edu)
3. EDUC Curriculum Manager (ejohnson@umd.edu; kgriff29@umd.edu; mpeercy@umd.edu)
4. EDUC PCC Chair (ejohnson@umd.edu; djbolger@umd.edu)
5. EDUC Dean (kgriff29@umd.edu; mpeercy@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Graduate School Curriculum Manager (jfarman@umd.edu)
8. Graduate PCC Chair (jfarman@umd.edu)
9. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
10. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
11. University Senate Chair (mcolson@umd.edu)
12. President (mcolson@umd.edu)
13. Chancellor (mcolson@umd.edu)
14. MHEC (mcolson@umd.edu)
15. Provost Office (mcolson@umd.edu)
16. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Mon, 29 Nov 2021 17:29:31 GMT
   Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. Thu, 09 Dec 2021 20:28:27 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
3. Thu, 09 Dec 2021 21:01:59 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
4. Thu, 16 Dec 2021 14:23:34 GMT
   Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
5. Thu, 16 Dec 2021 14:48:05 GMT
   Donald Bolger (djbolger): Approved for EDUC PCC Chair
6. Fri, 14 Jan 2022 17:44:33 GMT
   Laura Stapleton (lstaplet): Approved for EDUC Dean
7. Wed, 26 Jan 2022 14:18:16 GMT
   Michael Colson (mcolson): Rollback to Initiator
8. Fri, 25 Feb 2022 20:53:18 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
9. Tue, 01 Mar 2022 17:13:26 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
10. Wed, 02 Mar 2022 19:21:15 GMT
    Elizabeth Johnson (ejohnson): Rollback to Initiator
11. Tue, 05 Apr 2022 19:19:53 GMT
    Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
12. Tue, 05 Apr 2022 19:53:00 GMT
    Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
13. Mon, 02 May 2022 18:13:59 GMT
    Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
14. Mon, 02 May 2022 18:20:03 GMT
    Donald Bolger (djbolger): Approved for EDUC PCC Chair
15. Tue, 10 May 2022 21:12:11 GMT
    Laura Stapleton (lstaplet): Approved for EDUC Dean
16. Fri, 05 Aug 2022 19:09:09 GMT

Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
17. Fri, 30 Sep 2022 12:54:50 GMT
     Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
18. Fri, 30 Sep 2022 12:58:03 GMT
     Jason Farman (jfarman): Approved for Graduate PCC Chair
19. Tue, 04 Oct 2022 14:32:34 GMT
     Steve Fetter (sfetter): Approved for Dean of the Graduate School
20. Tue, 04 Oct 2022 20:40:51 GMT
     Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Oct 18, 2019 by William Bryan (wbryan)

Date Submitted: Tue, 05 Apr 2022 18:19:54 GMT

Viewing: 361 : Quantitative Methodology: Measurement and Statistics
Last approved: Fri, 18 Oct 2019 13:00:40 GMT
Last edit: Fri, 10 Jun 2022 21:05:48 GMT

Changes proposed by: Jeffrey Harring (harring)

Proposed Action

Rename Program

Program Name

Quantitative Methodology: Measurement and Statistics

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Doctoral

Delivery Method

On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code

EDMS

MHEC Inventory Program

Measurement, Statistics and Evaluation

CIP Code

130603 - Educational Statistics and Research Methods.

HEGIS

082400

Degree(s) Awarded

Degree Awarded
Doctor of Philosophy

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the Department of Human Development and Quantitative Methodology (HDQM) in the College of Education is proposing to change its program's name to Quantitative Methodology: Measurement and Statistics

(PCC Log Number 22006)

Program and Catalog Information

Catalog Program Requirements:

Doctoral students are required to complete 66 credits including 12 credits of EDMS899 and 21 credits of electives.

The Ph.D. program requires both preliminary and comprehensive examinations; the comprehensive examination is designed to assess broad, integrated understanding as well as the student's specialization. All students are expected to engage in research. Measurement, Statistics and Evaluation does not currently offer the Ed.D. degree.

Course	Title	Credits
Required courses:		
EDMS623	Applied Measurement: Issues and Practices	3
EDMS626	Instrumentation	3
EDMS646	General Linear Models I	3
EDMS647	Causal Inference and Evaluation Methods	3
EDMS651	General Linear Models II	3
EDMS655	Introduction to Multilevel Modeling	3
EDMS657	Exploratory Latent and Composite Variable Methods	3
EDMS722	Structural Modeling	3
EDMS724	Modern Measurement Theory	3
EDMS779	Seminar in Applied Statistics	3
EDMS787	Bayesian Inference and Analysis	3
Electives		21
Dissertation Research Requirements		
EDMS899	Doctoral Dissertation Research	12
Total Credits		**66**

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any doctoral student who entered the PhD program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all doctoral students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially.

At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

Proposed-Name-Change-Document.docx

Reviewer Comments

Michael Colson (mcolson) (Wed, 26 Jan 2022 14:18:17 GMT): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (Wed, 02 Mar 2022 19:21:15 GMT): Rollback: Please reach out to Dr. Bolger and Mike Colson for any assistance.

Key: 361

Program Change Request

Date Submitted: 04/05/22 2:19 pm

Viewing: **361 : Quantitative Methodology: Measurement ~~Measurement, Statistics~~ and Statistics ~~Evaluation (EDMS)~~**

Last approved: 10/18/19 9:00 am

Last edit: 06/10/22 5:05 pm

Changes proposed by: Jeffrey Harring (harring)

Catalog Pages Using this Program

Measurement, Statistics and Evaluation, Doctor of Philosophy (Ph.D.)

Proposed Action	Rename Program
Program Name	

Approval Path

1. 11/29/21 12:29 pm Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. 12/09/21 3:28 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

3. 12/09/21 4:01 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

4. 12/16/21 9:23 am Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

5. 12/16/21 9:48 am Donald Bolger (djbolger): Approved for EDUC PCC Chair

6. 01/14/22 12:44 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

7. 01/26/22 9:18 am Michael Colson (mcolson): Rollback to Initiator

8. 02/25/22 3:53 pm Donald Bolger (djbolger): Approved for D-HDQM PCC Chair

9. 03/01/22 12:13 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

10. 03/02/22 2:21 pm Elizabeth Johnson (ejohnson): Rollback to Initiator

11. 04/05/22 3:19 pm Donald Bolger (djbolger):

Approved for D-
HDQM PCC Chair

12. 04/05/22 3:53 pm
Dennis Kivlighan
(dennisk): Approved
for D-HDQM Chair

13. 05/02/22 2:13 pm
Elizabeth Johnson
(ejohnson):
Approved for EDUC
Curriculum
Manager

14. 05/02/22 2:20 pm
Donald Bolger
(djbolger):
Approved for EDUC
PCC Chair

15. 05/10/22 5:12 pm
Laura Stapleton
(lstaplet): Approved
for EDUC Dean

16. 08/05/22 3:09 pm
Michael Colson
(mcolson):
Approved for
Academic Affairs
Curriculum
Manager

17. 09/30/22 8:54 am
Jason Farman
(jfarman): Approved
for Graduate School
Curriculum
Manager

18. 09/30/22 8:58 am
Jason Farman
(jfarman): Approved
for Graduate PCC
Chair

19. 10/04/22 10:32 am
Steve Fetter

(sfetter): Approved
for Dean of the
Graduate School

20. 10/04/22 4:40 pm
Piotr Swistak
(pswistak):
Approved for
Senate PCC Chair

History

1. Sep 16, 2019 by
aambrosi
2. Oct 18, 2019 by
William Bryan
(wbryan)

Quantitative Methodology: Measurement ~~Measurement, Statistics~~ and Statistics ~~Evaluation (EDMS)~~

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023
Program Level	Graduate Program
Program Type	Doctoral
Delivery Method	On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code	EDMS
MHEC Inventory Program	Measurement, Statistics and Evaluation
CIP Code	130603 - Educational Statistics and Research Methods.

HEGIS   082400

MHEC Recognized

Area(s) of

Concentration

Degree(s) Awarded

Degree Awarded
Doctor of Philosophy

If other, new

degree award:

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the
Department of Human Development and Quantitative Methodology (HDQM) in the College of
Education is proposing to change its program's name to Quantitative Methodology:
Measurement and Statistics

(PCC Log Number 22006)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of
concentration or specializations that will be offered.

Catalog Program Requirements:

Doctoral students are required to complete 66 credits including 12 credits of EDMS899 and 21 credits of electives.
The Ph.D. program requires both preliminary and comprehensive examinations; the comprehensive examination is
designed to assess broad, integrated understanding as well as the student's specialization. All students are
expected to engage in research. Measurement, Statistics and Evaluation does not currently offer the Ed.D. degree.

Course	Title	Credits
Required courses:		
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EDMS626	Instrumentation	3
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EDMS647	Causal Inference and Evaluation Methods	3

Course	Title	Credits
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EDMS655	Introduction to Multilevel Modeling	3
EDMS657	Exploratory Latent and Composite Variable Methods	3
EDMS722	Structural Modeling	3
EDMS724	Modern Measurement Theory	3
EDMS779	Seminar in Applied Statistics	3
EDMS787	Bayesian Inference and Analysis	3
Electives		21
Dissertation Research Requirements		
EDMS899	Doctoral Dissertation Research	12
Total Credits		66

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any doctoral student who entered the PhD program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all doctoral students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

Renaming Program

Provide a rationale for renaming the program.

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially. At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

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HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

Proposed-Name-Change-Document.docx

Administrative

Documents

Reviewer

Comments

Michael Colson (mcolson) (01/26/22 9:18 am): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (03/02/22 2:21 pm): Rollback: Please reach out to Dr. Bolger and

Mike Colson for any assistance.

Key: 361

Doctoral students are required to complete 66 credits including 12 credits of EDMS899 and 21 credits of electives.

The Ph.D. program requires both preliminary and comprehensive examinations; the comprehensive examination is designed to assess broad, integrated understanding as well as the student's specialization. All students are expected to engage in research. Measurement, Statistics and Evaluation does not currently offer the Ed.D. degree.

The required course list obtained from the Graduate Catalog will not change with the exception of the 4-letter acronym to QMMS. This will occur at a secondary phase of the renaming process in AY 2022-2023.

Lastly, on the online form to change program's name, we plan to change the 4-letter acronym from EDMS (current) to QMMS (newly proposed acronym). There was not an opportunity to change this line item on the online form, so I am making this explicit here.

Rename the Post-Baccalaureate Certificate in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (PCC 22007)

PRESENTED BY	Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee
REVIEW DATES	SEC – October 17, 2022	SENATE – November 2, 2022
VOTING METHOD	In a single vote
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	Senate, President, USM Chancellor, and the Maryland Higher Education Commission

ISSUE

The College of Education's Department of Human Development and Quantitative Methodology proposes to change the name of its Post-Baccalaureate Certificate in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics". After determining that the current name no longer accurately reflects the full scope of the program's activities, the faculty voted unanimously to change the program's name. Incorporating "Quantitative Methodology" into the program title reflects the broader applications of the skills and knowledge students gain from the program, whereas retaining "Measurement and Statistics" in the title links the program to its past identity as a program that applies methods research to educational problems. The program faculty have detected some confusion in the past several years as different constituents refer to the program in different ways, some referring to it by its technical name of "Measurement, Statistics, and Evaluation," or its traditional acronym EDMS, and some referring to it as "Quantitative Methodology," because of its alignment with the name of the department. The new title, "Quantitative Methodology: Measurement and Statistics," will rebrand the program under one title that reflects its traditional, current, and future activities. Separate proposals have been submitted in order to rename all of the graduate programs in "Measurement, Statistics, and Evaluation" to "Quantitative Methodology: Measurement and Statistics".

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Ji Seung Yang, from the Department of Human Development and Quantitative Methodology, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the coursework and activities of the program.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

362: QUANTITATIVE METHODOLOGY: MEASUREMENT AND STATISTICS (Z019)

In Workflow

1. D-HDQM PCC Chair (djbolger@umd.edu)
2. D-HDQM Chair (psteiner@umd.edu)
3. EDUC Curriculum Manager (ejohnson@umd.edu; kgriff29@umd.edu; mpeercy@umd.edu)
4. EDUC PCC Chair (ejohnson@umd.edu; djbolger@umd.edu)
5. EDUC Dean (kgriff29@umd.edu; mpeercy@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Graduate School Curriculum Manager (jfarman@umd.edu)
8. Graduate PCC Chair (jfarman@umd.edu)
9. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
10. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
11. University Senate Chair (mcolson@umd.edu)
12. President (mcolson@umd.edu)
13. Chancellor (mcolson@umd.edu)
14. MHEC (mcolson@umd.edu)
15. Provost Office (mcolson@umd.edu)
16. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Mon, 29 Nov 2021 17:29:29 GMT
   Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. Thu, 09 Dec 2021 20:28:29 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
3. Thu, 09 Dec 2021 21:02:03 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
4. Thu, 16 Dec 2021 14:23:41 GMT
   Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
5. Thu, 16 Dec 2021 14:48:08 GMT
   Donald Bolger (djbolger): Approved for EDUC PCC Chair
6. Fri, 14 Jan 2022 17:44:55 GMT
   Laura Stapleton (lstaplet): Approved for EDUC Dean
7. Wed, 26 Jan 2022 14:18:49 GMT
   Michael Colson (mcolson): Rollback to Initiator
8. Fri, 25 Feb 2022 20:53:21 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
9. Tue, 01 Mar 2022 17:13:33 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
10. Wed, 02 Mar 2022 19:22:00 GMT
    Elizabeth Johnson (ejohnson): Rollback to Initiator
11. Tue, 05 Apr 2022 19:19:55 GMT
    Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
12. Tue, 05 Apr 2022 19:53:04 GMT
    Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
13. Mon, 02 May 2022 18:14:05 GMT
    Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
14. Mon, 02 May 2022 18:20:06 GMT
    Donald Bolger (djbolger): Approved for EDUC PCC Chair
15. Tue, 10 May 2022 21:12:15 GMT
    Laura Stapleton (lstaplet): Approved for EDUC Dean
16. Fri, 05 Aug 2022 19:09:22 GMT

Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
17. Fri, 30 Sep 2022 12:55:00 GMT
     Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
18. Fri, 30 Sep 2022 12:58:06 GMT
     Jason Farman (jfarman): Approved for Graduate PCC Chair
19. Tue, 04 Oct 2022 14:31:57 GMT
     Steve Fetter (sfetter): Approved for Dean of the Graduate School
20. Tue, 04 Oct 2022 20:41:31 GMT
     Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Oct 18, 2019 by William Bryan (wbryan)

Date Submitted: Tue, 05 Apr 2022 18:20:03 GMT

Viewing: 362 : Quantitative Methodology: Measurement and Statistics (Z019)
Last approved: Fri, 18 Oct 2019 13:01:17 GMT
Last edit: Fri, 10 Jun 2022 21:06:46 GMT

Changes proposed by: Jeffrey Harring (harring)

Proposed Action

Rename Program

Program Name

Quantitative Methodology: Measurement and Statistics (Z019)

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Post-Baccalaureate Certificate

Delivery Method

On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code

Z019

MHEC Inventory Program

Measurement, Statistics and Evaluation

CIP Code

130603 - Educational Statistics and Research Methods.

HEGIS

082400

Degree(s) Awarded

Degree Awarded
Certificate, Post-Baccalaureate

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the Department of Human Development and Quantitative Methodology (HDQM) in the College of Education is proposing to change its program's name to Quantitative Methodology: Measurement and Statistics (QMMS).

(PCC Log Number 22007)

Program and Catalog Information

Catalog Program Requirements:

Total Credits: 21 credits required

The Certificate in Measurement, Statistics and Evaluation is designed to provide advanced training in quantitative methods for graduate students majoring in other doctoral programs. The certificate requires a minimum of 21 graduate credit hours. In addition, an advisor must be selected from members of the Measurement, Statistics and Evaluation faculty.

Course	Title	Credits
Required courses:		
EDMS623	Applied Measurement: Issues and Practices	3
EDMS646	General Linear Models I	3
EDMS647	Causal Inference and Evaluation Methods	3
EDMS651	General Linear Models II	3
Electives		9
Total Credits		**21**

Program Modification Information

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The impact on current students will be minimal. Any certificate student who entered the certificate program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all certificate students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

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Supporting Documents

Attachments

Proposed-Name-Change-Document-PBC.docx

Reviewer Comments

Michael Colson (mcolson) (Wed, 26 Jan 2022 14:18:49 GMT): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (Wed, 02 Mar 2022 19:22:00 GMT): Rollback: Please reach out to Dr. Bolger and Mike Colson for any assistance.

Key: 362

Program Change Request

Date Submitted: 04/05/22 2:20 pm

Viewing: **362 : Quantitative Methodology: Measurement ~~Measurement, Statistics~~ and Statistics <u>Statistics</u> ~~Evaluation~~ (Z019)**

Last approved: 10/18/19 9:01 am

Last edit: 06/10/22 5:06 pm

Changes proposed by: Jeffrey Harring (harring)

Catalog Pages Using this Program

Measurement, Statistics & Evaluation, Post-Baccalaureate Certificate (P.B.C.)

Proposed Action	Rename Program
Program Name	

Approval Path

1. 11/29/21 12:29 pm Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. 12/09/21 3:28 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

3. 12/09/21 4:02 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

4. 12/16/21 9:23 am Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

5. 12/16/21 9:48 am Donald Bolger (djbolger): Approved for EDUC PCC Chair

6. 01/14/22 12:44 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

7. 01/26/22 9:18 am Michael Colson (mcolson): Rollback to Initiator

8. 02/25/22 3:53 pm Donald Bolger (djbolger): Approved for D-HDQM PCC Chair

9. 03/01/22 12:13 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

10. 03/02/22 2:22 pm Elizabeth Johnson (ejohnson): Rollback to Initiator

11. 04/05/22 3:19 pm Donald Bolger (djbolger):

Approved for D-HDQM PCC Chair

12. 04/05/22 3:53 pm Dennis Kivlighan (dennisk): Approved for D-HDQM Chair

13. 05/02/22 2:14 pm Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager

14. 05/02/22 2:20 pm Donald Bolger (djbolger): Approved for EDUC PCC Chair

15. 05/10/22 5:12 pm Laura Stapleton (lstaplet): Approved for EDUC Dean

16. 08/05/22 3:09 pm Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager

17. 09/30/22 8:55 am Jason Farman (jfarman): Approved for Graduate School Curriculum Manager

18. 09/30/22 8:58 am Jason Farman (jfarman): Approved for Graduate PCC Chair

19. 10/04/22 10:31 am Steve Fetter

(sfetter): Approved
for Dean of the
Graduate School
20. 10/04/22 4:41 pm
Piotr Swistak
(pswistak):
Approved for
Senate PCC Chair

History

1. Sep 16, 2019 by
aambrosi
2. Oct 18, 2019 by
William Bryan
(wbryan)

Quantitative Methodology: Measurement ~~Measurement, Statistics~~ and Statistics ~~Evaluation~~
(Z019)

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023
Program Level	Graduate Program
Program Type	Post-Baccalaureate Certificate
Delivery Method	On Campus

Departments	Department
	Human Development and Quantitative Methodology

Colleges	College
	Education

Program/Major Code	Z019
MHEC Inventory Program	Measurement, Statistics and Evaluation
CIP Code	130603 - Educational Statistics and Research Methods.

HEGIS   082400

MHEC Recognized

Area(s) of

Concentration

Degree(s) Awarded

Degree Awarded
Certificate, Post-Baccalaureate

If other, new

degree award:

Proposal Contact

Jeff Harring

Proposal Summary

The program formally known as Measurement, Statistics and Evaluation (EDMS) in the
Department of Human Development and Quantitative Methodology (HDQM) in the College of
Education is proposing to change its program's name to Quantitative Methodology:
Measurement and Statistics (QMMS).

(PCC Log Number 22007)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of
concentration or specializations that will be offered.

Catalog Program Requirements:

Total Credits: 21 credits required

The Certificate in Measurement, Statistics and Evaluation is designed to provide advanced training in quantitative
methods for graduate students majoring in other doctoral programs. The certificate requires a minimum of 21
graduate credit hours. In addition, an advisor must be selected from members of the Measurement, Statistics and
Evaluation faculty.

Course	Title	Credits
Required courses:		
EDMS623	Applied Measurement: Issues and Practices	3
EDMS646	General Linear Models I	3
EDMS647	Causal Inference and Evaluation Methods	3

Course	Title	Credits
EDMS651	General Linear Models II	3
Electives		9
Total Credits		21

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The impact on current students will be minimal. Any certificate student who entered the certificate program under the name Measurement, Statistics and Evaluation (EDMS) will have the choice to keep this name on their diploma. However, all certificate students who enter the program after the effective start date of the new program name (we hope in Fall 2022) will have the new program, Quantitative Methodology: Measurement and Statistics (QMMS), name on their diploma.

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

Renaming Program

Provide a rationale for renaming the program.

EDMS Program Name Change

Over the past 2 years, the Measurement, Statistics and Evaluation (EDMS) Program faculty have been discussing changing our name. A small subcommittee was formed to gather information about what different names—and acronyms—we seem to have across the department, college and campus; and subsequently, what name would the current faculty like to adopt officially. At our February 7, 2022 program faculty meeting the EDMS faculty unanimously voted to change our name (and 4-letter acronym) from Measurement, Statistics and Evaluation (EDMS) to Quantitative Methodology: Measurement and Statistics (or QMMS). This was done for two main reasons.

1. In an effort to remain current with quantitative methods broadly construed in our profession, our program faculty thought that Measurement, Statistics and Evaluation no longer adequately captured the research areas and focus of our faculty. Nor did it satisfactorily capture where we see quantitative methods research going in the next 5-10 years and beyond. After serious debate and deliberation about this type of "re-branding," we felt that the Quantitative Methodology (part of our new proposed name) aligned with the Departmental naming convention and the "Measurement and Statistics" structure links to our past identity. Although housed in a college of education where applications of our methods research to educational problems is important, we also take note that our methods are being employed in the broader behavioral science and social science communities—as well as in the health sciences.

2. Secondly, I am not certain if you have noticed, but we seem to have an identity crisis of sorts. If you look across campus at different pertinent websites (i.e., Graduate Catalog, HDQM website), you might have noticed that we have been referred to as (1) QM (Quantitative Methodology), (2) MSE (Measurement, Statistics and Evaluation), and (3) EDMS (the 4-letter naming convention on Testudo). We did not make these acronyms up but nevertheless they have materialized and followed us. So, part of this renaming effort is to bring clarity to a unified acronym (QMMS), which the current program faculty is solidly behind.

We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

  [Proposed-Name-Change-Document-PBC.docx](#)

Administrative
Documents

Reviewer
Comments

Michael Colson (mcolson) (01/26/22 9:18 am): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (03/02/22 2:22 pm): Rollback: Please reach out to Dr. Bolger and
Mike Colson for any assistance.

Key: 362

The required course list obtained from the Graduate Catalog will not change with the exception of the 4-letter acronym to QMMS. This will occur at a secondary phase of the renaming process in AY 2022-2023.

Lastly, on the online form to change program's name, we plan to change the 4-letter acronym from EDMS (current) to QMMS (newly proposed acronym). There was not an opportunity to change this line item on the online form, so I am making this explicit here.

From the Graduate Catalog:

The Certificate in Measurement, Statistics and Evaluation is designed to provide advanced training in quantitative methods for graduate students majoring in other doctoral programs. The certificate requires a minimum of 21 graduate credit hours. In addition, an advisor must be selected from members of the Measurement, Statistics and Evaluation faculty.

The core courses listed in the Graduate Catalog have not changed nor any requirement with the exception of the 4-letter acronym (EDMS) which will be changed to newly proposed (QMMS) in a secondary phase of the PCC process.

Rename the Master of Education in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics" (PCC 22008)

PRESENTED BY	**Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee**
REVIEW DATES	**SEC – October 17, 2022	SENATE – November 2, 2022**
VOTING METHOD	**In a single vote**
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	**Senate, President, USM Chancellor, and the Maryland Higher Education Commission**

ISSUE

The College of Education's Department of Human Development and Quantitative Methodology proposes to change the name of its Master of Education in "Measurement, Statistics and Evaluation" to "Quantitative Methodology: Measurement and Statistics". After determining that the current name no longer accurately reflects the full scope of the program's activities, the faculty voted unanimously to change the program's name. Incorporating "Quantitative Methodology" into the program title reflects the broader applications of the skills and knowledge students gain from the program, whereas retaining "Measurement and Statistics" in the title links the program to its past identity as a program that applies methods research to educational problems. The program faculty have detected some confusion in the past several years as different constituents refer to the program in different ways, some referring to it by its technical name of "Measurement, Statistics, and Evaluation," or its traditional acronym EDMS, and some referring to it as "Quantitative Methodology," because of its alignment with the name of the department. The new title, "Quantitative Methodology: Measurement and Statistics," will rebrand the program under one title that reflects its traditional, current, and future activities. Separate proposals have been submitted in order to rename all of the graduate programs in "Measurement, Statistics, and Evaluation" to "Quantitative Methodology: Measurement and Statistics".

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Ji Seung Yang, from the Department of Human Development and Quantitative Methodology, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the coursework and activities of the program.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

612: QUANTITATIVE METHODOLOGY: MEASUREMENT AND STATISTICS (QMMS-M.ED.)

In Workflow

1. D-HDQM PCC Chair (djbolger@umd.edu)
2. D-HDQM Chair (psteiner@umd.edu)
3. EDUC Curriculum Manager (ejohnson@umd.edu; kgriff29@umd.edu; mpeercy@umd.edu)
4. EDUC PCC Chair (ejohnson@umd.edu; djbolger@umd.edu)
5. EDUC Dean (kgriff29@umd.edu; mpeercy@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Graduate School Curriculum Manager (jfarman@umd.edu)
8. Graduate PCC Chair (jfarman@umd.edu)
9. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
10. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
11. University Senate Chair (mcolson@umd.edu)
12. President (mcolson@umd.edu)
13. Chancellor (mcolson@umd.edu)
14. MHEC (mcolson@umd.edu)
15. Provost Office (mcolson@umd.edu)
16. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Mon, 29 Nov 2021 17:29:26 GMT
   Penny Gomes (pengo): Approved for D-HDQM Curriculum Manager
2. Thu, 09 Dec 2021 20:28:31 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
3. Thu, 09 Dec 2021 21:02:07 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
4. Thu, 16 Dec 2021 14:25:03 GMT
   Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
5. Thu, 16 Dec 2021 14:48:39 GMT
   Donald Bolger (djbolger): Approved for EDUC PCC Chair
6. Fri, 14 Jan 2022 17:45:36 GMT
   Laura Stapleton (lstaplet): Approved for EDUC Dean
7. Wed, 26 Jan 2022 14:19:14 GMT
   Michael Colson (mcolson): Rollback to Initiator
8. Fri, 25 Feb 2022 20:53:24 GMT
   Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
9. Tue, 01 Mar 2022 17:13:37 GMT
   Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
10. Wed, 02 Mar 2022 19:22:25 GMT
    Elizabeth Johnson (ejohnson): Rollback to Initiator
11. Tue, 05 Apr 2022 19:19:57 GMT
    Donald Bolger (djbolger): Approved for D-HDQM PCC Chair
12. Tue, 05 Apr 2022 19:53:08 GMT
    Dennis Kivlighan (dennisk): Approved for D-HDQM Chair
13. Mon, 02 May 2022 18:14:48 GMT
    Elizabeth Johnson (ejohnson): Approved for EDUC Curriculum Manager
14. Mon, 02 May 2022 18:20:14 GMT
    Donald Bolger (djbolger): Approved for EDUC PCC Chair
15. Tue, 10 May 2022 21:12:25 GMT
    Laura Stapleton (lstaplet): Approved for EDUC Dean
16. Fri, 05 Aug 2022 19:09:35 GMT

Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
17. Fri, 30 Sep 2022 12:55:23 GMT
    Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
18. Fri, 30 Sep 2022 12:58:11 GMT
    Jason Farman (jfarman): Approved for Graduate PCC Chair
19. Tue, 04 Oct 2022 14:31:42 GMT
    Steve Fetter (sfetter): Approved for Dean of the Graduate School
20. Tue, 04 Oct 2022 20:41:57 GMT
    Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 16, 2019 by aambrosi
2. Sep 16, 2019 by aambrosi
3. Oct 18, 2019 by William Bryan (wbryan)

Date Submitted: Tue, 05 Apr 2022 18:20:17 GMT

Viewing: 612 : Quantitative Methodology: Measurement and Statistics (QMMS-M.Ed.)
Last approved: Fri, 18 Oct 2019 13:00:06 GMT
Last edit: Thu, 29 Sep 2022 15:30:16 GMT

Changes proposed by: Jeffrey Harring (harring)

Proposed Action

Rename Program

Program Name

Quantitative Methodology: Measurement and Statistics (QMMS-M.Ed.)

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Master's

Delivery Method

On Campus

Departments

Department
Human Development and Quantitative Methodology

Colleges

College
Education

Program/Major Code

EDMS

MHEC Inventory Program

Measurement, Statistics and Evaluation

CIP Code

130603 - Educational Statistics and Research Methods.

HEGIS

082400

Degree(s) Awarded

Degree Awarded
Master of Education

Proposal Contact

Jeff Harring

Proposal Summary

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(PCC Log Number 22008)

Program and Catalog Information

Catalog Program Requirements:

The M.Ed. option is not currently offered.

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We currently do not offer the M.Ed. degree, but since it is "on the books," officially, we are requesting that this degree program also follow the new program naming convention articulated in the proposal.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

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We have reached out to targeted area alums of our program to gauge their reaction to a name change. Their reactions and responses were initially mixed—citing an affinity and affection to the EDMS acronym. But after stating our reasoning behind making this change, all we spoke to were supportive.

HDQM's Plan of Organization requires programmatic changes of this magnitude to have the endorsement of the (1) Executive Committee (which endorsed this renaming effort in an earlier meeting this month), (2) the HD faculty, and (3) the HDQM Graduate Education Committee.

Supporting Documents

Attachments

Proposed-Name-Change-Document-MEd.docx

Reviewer Comments

Michael Colson (mcolson) (Wed, 26 Jan 2022 14:19:14 GMT): Rollback: Returning for revisions

Elizabeth Johnson (ejohnson) (Wed, 02 Mar 2022 19:22:25 GMT): Rollback: Please reach out to Dr. Bolger and Mike Colson for any assistance.

Key: 612

Program Change Request

Date Submitted: 04/05/22 2:20 pm

Viewing: **612 : <u>Quantitative Methodology: Measurement</u> ~~Measurement, Statistics~~ and Statistics (QMMS-M.Ed.)** ~~Evaluation (EDMS-M.Ed.)~~

Last approved: 10/18/19 9:00 am

Last edit: 09/29/22 11:30 am

Changes proposed by: Jeffrey Harring (harring)

Catalog Pages Using this Program

  Measurement, Statistics and Evaluation, Master of Education (M.Ed.)

Proposed Action	Rename Program
Program Name	

In Workflow

1. **D-HDQM PCC Chair**
2. **D-HDQM Chair**
3. **EDUC Curriculum Manager**
4. **EDUC PCC Chair**
5. **EDUC Dean**
6. **Academic Affairs Curriculum Manager**
7. **Graduate School Curriculum Manager**
8. **Graduate PCC Chair**
9. **Dean of the Graduate School**
10. **Senate PCC Chair**
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1. Sep 16, 2019 by aambrosi
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Quantitative Methodology: Measurement Measurement, Statistics and Statistics (QMMS-M.Ed.) Evaluation (EDMS-M.Ed.)

Program Status	Active
Effective Term	Fall 2022
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Program Level	Graduate Program
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Area(s) of
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If other, new
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Key: 612

Doctoral students are required to complete 66 credits including 12 credits of EDMS899 and 21 credits of electives.

The Ph.D. program requires both preliminary and comprehensive examinations; the comprehensive examination is designed to assess broad, integrated understanding as well as the student's specialization. All students are expected to engage in research. Measurement, Statistics and Evaluation does not currently offer the Ed.D. degree.

The required course list obtained from the Graduate Catalog will not change with the exception of the 4-letter acronym to QMMS. This will occur at a secondary phase of the renaming process in AY 2022-2023.

Lastly, on the online form to change program's name, we plan to change the 4-letter acronym from EDMS (current) to QMMS (newly proposed acronym). There was not an opportunity to change this line item on the online form, so I am making this explicit here.

Rename the Master of Science in "Business and Management" to "Management Studies" (PCC 22014)

PRESENTED BY	Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee
REVIEW DATES	SEC – October 17, 2022 │ SENATE – November 2, 2022
VOTING METHOD	In a single vote
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	Senate, President, USM Chancellor, and the Maryland Higher Education Commission

ISSUE

The Robert H. Smith School of Business proposes to change the name of its Master of Science in "Business and Management" to "Management Studies". The new title will align the program with industry expectations for such a degree, and the program will be more easily marketable to prospective students. Many peer and aspirational schools, including schools in our geographic area, have named similar programs Master of Science in Management Studies. These universities include Georgetown University, George Washington University, Pennsylvania State University, New York University, Boston College, Duke University, and George Mason University.

This name change will also apply to the online version of the program.

The proposal was approved by the Graduate School PCC committee on September 29, 2022, and the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Rellie Rozin and Mike Marcellino, from the Robert H. Smith School of Business, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will continue to lose prospective students to similar programs at peer and aspirational universities, whose programs have a more recognizable name.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

165: MANAGEMENT STUDIES (BMSB)

In Workflow

1. BMGT PCC Chair (bhorick@umd.edu; mmarcell@umd.edu)
2. BMGT Dean (dgodes@umd.edu)
3. Academic Affairs Curriculum Manager (mcolson@umd.edu)
4. Graduate School Curriculum Manager (jfarman@umd.edu)
5. Graduate PCC Chair (jfarman@umd.edu)
6. Dean of the Graduate School (sfetter@umd.edu; jfarman@umd.edu)
7. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
8. University Senate Chair (mcolson@umd.edu)
9. President (mcolson@umd.edu)
10. Chancellor (mcolson@umd.edu)
11. MHEC (mcolson@umd.edu)
12. Provost Office (mcolson@umd.edu)
13. Graduate Catalog Manager (bhernand@umd.edu; fantsao@umd.edu)

Approval Path

1. Fri, 15 Apr 2022 17:44:57 GMT
   Michael Marcellino (mmarcell): Approved for BMGT PCC Chair
2. Mon, 25 Jul 2022 19:32:13 GMT
   David Godes (dgodes): Approved for BMGT Dean
3. Mon, 12 Sep 2022 20:55:34 GMT
   Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
4. Fri, 30 Sep 2022 12:54:14 GMT
   Jason Farman (jfarman): Approved for Graduate School Curriculum Manager
5. Fri, 30 Sep 2022 12:57:46 GMT
   Jason Farman (jfarman): Approved for Graduate PCC Chair
6. Tue, 04 Oct 2022 14:28:09 GMT
   Steve Fetter (sfetter): Approved for Dean of the Graduate School
7. Tue, 04 Oct 2022 20:32:14 GMT
   Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Aug 23, 2019 by aambrosi
2. Sep 11, 2019 by aambrosi
3. Oct 15, 2019 by William Bryan (wbryan)

Date Submitted: Fri, 15 Apr 2022 17:44:16 GMT

Viewing: 165 : Management Studies (BMSB)

Last approved: Tue, 15 Oct 2019 12:35:36 GMT

Last edit: Mon, 10 Oct 2022 14:37:08 GMT

Changes proposed by: Michael Marcellino (mmarcell)

Proposed Action

Rename Program

Program Name

Management Studies (BMSB)

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Graduate Program

Program Type

Master's

Delivery Method

On Campus

Departments

Department
The Robert H. Smith School of Business

Colleges

College
The Robert H. Smith School of Business

Program/Major Code

BMSB

MHEC Inventory Program

Business and Management

CIP Code

520101 - Business/Commerce, General.

HEGIS

050100

Degree(s) Awarded

Degree Awarded
Master of Science

Proposal Contact

Robert H Smith: Michael Marcellino and Rellie Rozin

Proposal Summary

The Master of Science in Business and Management (MSBM) degree at the Robert H Smith School of Business would like to apply for a name change of the program to be Master of Science in Management Studies (MiM). We do not propose any curriculum change or any change to the structure of the program. This is merely an application for name change to make the program name more in line with how other peer and aspirational schools name such programs and therefore also more in line with industry expectations for graduates of such program.

(PCC Log Number 22014)

Program and Catalog Information

Catalog Program Requirements:

Non-thesis only: 30 credits

Course	Title	Credits
Core Requirements		
BUSI610	Introduction to Financial Accounting	2
BUSI630	Data Driven Decision Making	2
BUSI640	Corporate Finance	2
BUSI650	Marketing Management	2

BUSI662	Leadership and Teamwork	2
BUSI681	Managerial Economics and Public Policy	2
BUSI690	Strategic Management	2
Electives approved with advisor		16
Total Credits		**30**

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The proposed update provides no new impact to the current status of the MSBM degree. Per above, there is no impact to curriculum and it is merely a relabeling of the program name.

Linked Programs

Renaming Program

Provide a rationale for renaming the program.

The Master of Science in Business and Management (MSBM) degree program in the Robert H Smith School of Business was designed to provide a foundation of business knowledge to students who have completed their undergraduate degree in a non-business related field but who largely do not yet have work experience. It is an intensive, full-time program targeted at undergraduate juniors and seniors who would like more exposure to tools and concepts in business-related subjects that will supplement their undergraduate major. It provides significantly greater depth (30 graduate credits) than is available from the business minor (15 undergraduate credits).

This proposal seeks to change the name of the MSBM degree to a Master of Science in Management Studies (MiM) degree. Our intention is to align the name of the program with how a similar program is named in peer and aspirational schools, making it also more aligned with industry expectations for such degree, and making the program more easily marketable to prospective students.

Many peer and aspirational schools, including schools in our geographic area, have named similar programs Master of Science in Management Studies, including for example: Georgetown University, George Washington University, Pennsylvania State University, New York University, Boston College, Duke University, George Mason University. We have also received feedback from our admission and Marketing and Communication office that changing the name to Master of Science in Management Studies (MiM) would be extremely beneficial in terms of more easily marketing the program and helping potential candidates better understand what this program entails and its market value.

Key: 165

Program Change Request

Date Submitted: 04/15/22 1:44 pm

Viewing: **165 : ~~Business and~~ Management <u>Studies</u> (BMSB)**

Last approved: 10/15/19 8:35 am

Last edit: 10/10/22 10:37 am

Changes proposed by: Michael Marcellino (mmarcell)

Catalog Pages Using this Program

<u>Business and Management, Master of Science (M.S.)</u>

Proposed Action	<u>Rename Program</u>
Program Name	

In Workflow

1. **BMGT PCC Chair**
2. **BMGT Dean**
3. **Academic Affairs Curriculum Manager**
4. **Graduate School Curriculum Manager**
5. **Graduate PCC Chair**
6. **Dean of the Graduate School**
7. **Senate PCC Chair**
8. **University Senate Chair**
9. President
10. Chancellor
11. MHEC
12. Provost Office
13. Graduate Catalog Manager

Approval Path

1. 04/15/22 1:44 pm Michael Marcellino (mmarcell): Approved for BMGT PCC Chair
2. 07/25/22 3:32 pm David Godes (dgodes): Approved for BMGT Dean
3. 09/12/22 4:55 pm Michael Colson (mcolson): Approved for

Academic Affairs
Curriculum
Manager

4. 09/30/22 8:54 am
Jason Farman
(jfarman): Approved
for Graduate School
Curriculum
Manager

5. 09/30/22 8:57 am
Jason Farman
(jfarman): Approved
for Graduate PCC
Chair

6. 10/04/22 10:28 am
Steve Fetter
(sfetter): Approved
for Dean of the
Graduate School

7. 10/04/22 4:32 pm
Piotr Swistak
(pswistak):
Approved for
Senate PCC Chair

History

1. Aug 23, 2019 by
aambrosi

2. Sep 11, 2019 by
aambrosi

3. Oct 15, 2019 by
William Bryan
(wbryan)

~~Business and~~ Management Studies (BMSB)

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023

Program Level	Graduate Program
Program Type	Master's
Delivery Method	On Campus

Departments

Department
The Robert H. Smith School of Business

Colleges

College
The Robert H. Smith School of Business

Program/Major Code	BMSB
MHEC Inventory Program	Business and Management
CIP Code	520101 - Business/Commerce, General.
HEGIS	050100

MHEC Recognized
Area(s) of
Concentration

Degree(s) Awarded

Degree Awarded
Master of Science

If other, new
degree award:

Proposal Contact

Robert H Smith: Michael Marcellino and Rellie Rozin

Proposal Summary

The Master of Science in Business and Management (MSBM) degree at the Robert H Smith School of Business would like to apply for a name change of the program to be Master of Science in Management Studies (MiM). We do not propose any curriculum change or any change to the structure of the program. This is merely an application for name change to make the program name more in line with how other peer and aspirational schools name such programs and therefore also more in line with industry expectations for graduates of such program.

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.

Catalog Program Requirements:

Non-thesis only: 30 credits

Course	Title	Credits
Core Requirements		
BUSI610	Introduction to Financial Accounting	2
BUSI630	Data Driven Decision Making	2
BUSI640	Corporate Finance	2
BUSI650	Marketing Management	2
BUSI662	Leadership and Teamwork	2
BUSI681	Managerial Economics and Public Policy	2
BUSI690	Strategic Management	2
Electives approved with advisor		16
Total Credits		30

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

The proposed update provides no new impact to the current status of the MSBM degree. Per above, there is no impact to curriculum and it is merely a relabeling of the program name.

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

Renaming Program

Provide a rationale for renaming the program.

The Master of Science in Business and Management (MSBM) degree program in the Robert H Smith School of Business was designed to provide a foundation of business knowledge to students who have completed their undergraduate degree in a non-business related field but who largely do not yet have work experience. It is an intensive, full-time program targeted at undergraduate juniors and seniors who would like more exposure to tools and concepts in business-related subjects that will supplement their undergraduate major. It provides significantly greater depth (30 graduate credits) than is available from the business minor (15 undergraduate credits).

This proposal seeks to change the name of the MSBM degree to a Master of Science in Management Studies (MiM) degree. Our intention is to align the name of the program with how a similar program is named in peer and aspirational schools, making it also more aligned with industry expectations for such degree, and making the program more easily marketable to prospective students.

Many peer and aspirational schools, including schools in our geographic area, have named similar programs Master of Science in Management Studies, including for example: Georgetown University, George Washington University, Pennsylvania State University, New York University, Boston College, Duke University, George Mason University. We have also received feedback from our admission and Marketing and Communication office that changing the name to Master of Science in Management Studies (MiM) would be extremely beneficial in terms of more easily marketing the program and helping potential candidates better understand what this program entails and its market value.

Supporting Documents

Attachments

Administrative
Documents

Reviewer
Comments

Rename the Bachelor of Science in "Embedded Systems and Internet of Things" to "Cyber-Physical Systems Engineering" (PCC 22023)

PRESENTED BY	**Piotr Swistak, Chair, Senate Programs, Curricula, and Courses Committee**
REVIEW DATES	**SEC – October 17, 2022	SENATE – November 2, 2022**
VOTING METHOD	**In a single vote**
RELEVANT POLICY/DOCUMENT	
NECESSARY APPROVALS	**Senate, President, USM Chancellor, and the Maryland Higher Education Commission**

ISSUE

The A. James Clark School of Engineering's Department of Electrical and Computer Engineering proposes to change the name of its Bachelor of Science in "Embedded Systems and Internet of Things" to "Cyber-Physical Systems Engineering". The program, which was established in 2019 and is offered at the Universities at Shady Grove, provides students with an understanding of both the hardware and software elements that go into design, development, and use of devices that link to the internet or other communication networks. The need to change the name has arisen from a requirement from the engineering accreditation agency, ABET, to include the word "engineering," in all engineering program titles. The department is also using this occasion to change the name to a less verbose name that better conveys the broad nature of this program of study.

The proposal was approved by the Senate Programs, Curricula, and Courses committee on October 7, 2022.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this name change.

COMMITTEE WORK

The committee considered this proposal at its meeting on October 7, 2022. Mel Gomez, from the Department of Electrical and Computer Engineering, presented the proposal and answered questions from the committee. The committee approved the proposal.

ALTERNATIVES

The Senate could decline to approve this new program title.

RISKS

If the Senate declines to approve this program title change, the current program will not adequately describe the breadth of the program, and it will also be out of compliance with its accreditation agency.

FINANCIAL IMPLICATIONS

There are no significant financial implications for program title changes.

660: CYBER-PHYSICAL SYSTEMS ENGINEERING

In Workflow

1. D-ENEE Curriculum Manager (kweiland@umd.edu; eirwin@umd.edu)
2. D-ENEE PCC Chair (adrian@umd.edu; kweiland@umd.edu; eirwin@umd.edu)
3. D-ENEE Chair (ednaw@umd.edu; josephj@umd.edu)
4. ENGR PCC Chair (mcbell@umd.edu; nroop@umd.edu; sash1@umd.edu)
5. ENGR Dean (kkiger@umd.edu; mcbell@umd.edu; nroop@umd.edu; sash1@umd.edu)
6. Academic Affairs Curriculum Manager (mcolson@umd.edu)
7. Senate PCC Chair (mcolson@umd.edu; pswistak@umd.edu)
8. University Senate Chair (mcolson@umd.edu)
9. President (mcolson@umd.edu)
10. Chancellor (mcolson@umd.edu)
11. MHEC (mcolson@umd.edu)
12. Provost Office (mcolson@umd.edu)
13. Undergraduate Catalog Manager (lyokoi@umd.edu; acruz130@umd.edu)

Approval Path

1. Mon, 28 Mar 2022 14:40:14 GMT
   Kathryn Weiland (kweiland): Approved for D-ENEE Curriculum Manager
2. Mon, 28 Mar 2022 14:59:46 GMT
   Adrianos Papamarcou (adrian): Approved for D-ENEE PCC Chair
3. Thu, 26 May 2022 18:30:00 GMT
   Joseph JaJa (josephj): Approved for D-ENEE Chair
4. Fri, 10 Jun 2022 16:52:46 GMT
   Mary Bell (mcbell): Rollback to Initiator
5. Mon, 12 Sep 2022 18:08:10 GMT
   Kathryn Weiland (kweiland): Approved for D-ENEE Curriculum Manager
6. Mon, 12 Sep 2022 18:20:15 GMT
   Adrianos Papamarcou (adrian): Approved for D-ENEE PCC Chair
7. Mon, 12 Sep 2022 20:23:12 GMT
   Joseph JaJa (josephj): Approved for D-ENEE Chair
8. Wed, 14 Sep 2022 17:40:42 GMT
   Mary Bell (mcbell): Approved for ENGR PCC Chair
9. Thu, 15 Sep 2022 12:02:10 GMT
   Ken Kiger (kkiger): Approved for ENGR Dean
10. Fri, 30 Sep 2022 20:35:43 GMT
    Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager
11. Mon, 03 Oct 2022 14:01:16 GMT
    Piotr Swistak (pswistak): Approved for Senate PCC Chair

History

1. Sep 13, 2019 by William Bryan (wbryan)
2. Oct 21, 2019 by William Bryan (wbryan)
3. May 13, 2021 by Mary Bell (mcbell)
4. Mar 7, 2022 by gckasten

Date Submitted: Mon, 12 Sep 2022 16:39:21 GMT

Viewing: 660 : Cyber-Physical Systems Engineering
Last approved: Mon, 07 Mar 2022 20:15:39 GMT
Last edit: Thu, 22 Sep 2022 17:47:26 GMT

Changes proposed by: Mary Bell (mcbell)

Proposed Action

Rename Program

Program Name

Cyber-Physical Systems Engineering

Program Status

Active

Effective Term

Fall 2022

Catalog Year

2022-2023

Program Level

Undergraduate Program

Program Type

Undergraduate Major

Delivery Method

On Campus

Departments

Department
Electrical and Computer Engineering

Colleges

College
The A. James Clark School of Engineering

Program/Major Code

07990

MHEC Inventory Program

Embedded Systems and Internet of Things

CIP Code

140999 - Computer Engineering, Other.

HEGIS

079900

Degree(s) Awarded

Degree Awarded
Bachelor of Science

Proposal Contact

Romel Gomez

Proposal Summary

Replace the program name from Bachelor of Science in Embedded Systems and Internet of Things to Bachelor of Science in Cyber-Physical Systems Engineering for accreditation consideration with ABET.

(PCC Log Number 22023)

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.

The Bachelor of Science in Cyber-Physical Systems Engineering will provide students with a solid foundation in key emerging technologies of the Internet of Things (IoT), the ability to integrate devices into complete IoT systems, and an understanding of how IoT fits within the wider context of information and communications technology, including data analytics and cloud computing. At the senior level, students will ultimately be able to specialize in one of the following tracks: Hardware, Computation, or Security track or pursue a General track option that provides a focus on courses from the other three tracks. It is expected that graduates will be in high demand in such occupational areas as hardware/software developers, computer systems analysts, network architects and administrators, information security analysts, information systems analysts and computer programs.

Catalog Program Requirements:

First & Second Year

Prior to being admitted to the Cyber-Physical Systems Engineering major, students should have completed the Engineering LEP gateway courses, basic math/science courses, lower-level General Education requirements, and at least 60 credits.

Course	Title	Credits
MATH140	Calculus I	4
MATH141	Calculus II	4
ENGL101	Academic Writing	3
CHEM135	General Chemistry for Engineers	3
PHYS161	General Physics: Mechanics and Particle Dynamics	3
PHYS260	General Physics: Vibration, Waves, Heat, Electricity and Magnetism	3
PHYS261	General Physics: Mechanics, Vibrations, Waves, Heat (Laboratory)	1
Programming Requirement [1]		2-4
ENES100	Introduction to Engineering Design	3
One of the following MATH2xx courses:		3-4
MATH246	Differential Equations for Scientists and Engineers	
MATH241	Calculus III	
MATH240	Introduction to Linear Algebra	
General Education Requirements/Additional Electives		28-31

[1] Embedded systems will accept any of the following programming courses or their equivalents:
- ENEE140
- CMSC131
- CMSC106
- Any introductory course in C, C++, Java, or Python (student must submit the course to ECE Department for Evaluation)

Junior & Senior Year at Shady Grove

Junior Year

First Semester	Credits	Second Semester	Credits	
ENEB302		4 ENEB304		3
ENEB344		4 ENEB352		3
ENEB354		3 ENEB353		3
ENEB340		3 ENEB355		3
ENEB341		3 ENEB345		3
		17		**15**

Senior Year

First Semester	Credits	Second Semester	Credits	
ENEB408 (ENEB408A Capstone Design I)		3 ENEB408 (ENEB408B Capstone Design II)		3
ENEB454		3 Senior Level Electives (based on track)		12
ENEB444		3		
ENEB346 (Linear Algebra for Machine Learning Applications)		3		

Professional Writing		3	
		15	**15**

Total Credits 62

Tracks

Hardware Track

Course	Title	Credits
Required Courses		
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	3
Elective Courses		**9**
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB451	Network Security	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development	
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	
ENEB457	Foundations of Databases for Web Applications	
Total Credits		**12**

Computational Track

Course	Title	Credits
Required Courses		
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	3
Elective Courses		**9**
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB451	Network Security	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development (Web Based Application Development)	
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	
ENEB457	Foundations of Databases for Web Applications	
Total Credits		**12**

Security Track

Course	Title	Credits
Required Courses		
ENEB451	Network Security	3
Elective Courses		**9**
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development	
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	
ENEB457	Foundations of Databases for Web Applications (Foundations of Databases for Web Applications)	
Total Credits		**12**

General Track

The General Track offers a general focus of course content with classes from each of the three tracks. While there are no specific required or elective courses for this track, the General Track requires 12 credits, which is the same as the other three tracks. Consult with an advisor for details.

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

SAMPLE ACADEMIC PLAN

FIRST AND SECOND YEAR

Prior to being admitted to the Cyber-Physical Systems Engineering major, students should have completed the Engineering LEP gateway courses, basic math/science courses, lower-level General Education requirements, and at least 60 credits.

MATH140: Calculus I (4 credits)

MATH141: Calculus II (4 credits)

MATH2xx: Students may select one of the following courses:

- MATH246 Differential Equations (3 credits)
- MATH241 Calculus III (4 credits)
- MATH240 Linear Algebra (3 credits)

PHYS161: General Physics, Mechanics and Particles Dynamics (3 credits)

PHYS260/261: General Physics, Electrodynamics, Light, Relativity & Modern Physics (4 credits)

CHEM135: General Chemistry for Engineers (3 credits)

Programming Course Requirement (2-4 credits)

General Education Courses (23-31 credits)

JUNIOR YEAR – 1st Semester (17 credits)

ENEB302 Analog Circuits (4 credits)

ENEB340 Intermediate Programming Concepts and Applications for Embedded Systems (C/C++) (3 credits)

ENEB341 Introduction to Internet of Things (3 credits)

ENEB344 Digital Logic Design for Embedded Systems (4 credits)

ENEB354 Discrete Mathematics for Information Technology (3 credits)

JUNIOR YEAR – 2nd Semester (15 credits)

ENEB304 Microelectronics and Sensors (3 credits)

ENEB352 Introduction to Networks and Protocols (3 credits)

ENEB353 Computer Organization for Embedded Systems (3 credits)

ENEB355 Algorithms in Python (3 credits)

ENEB345 Probability & Statistical Inference (3 credits)

SENIOR YEAR – 1st Semester (15 credits)

ENEB408A Capstone Design Lab I (3 credits)

ENEB454 Embedded Systems (3 credits)

ENEB444 Operating Systems for Embedded Systems (3 credits)

ENEB346 Linear Algebra for Machine Learning Applications (3 credits)

ENGL3** Professional Writing (3 credits)

SENIOR YEAR – 2nd Semester (15 credits)

ENEE408B Capstone Design Lab II (3 credits)

ENEB4XX Senior General Electives (12 credits)

PROGRAM TRACKS

Students in the Cyber-Physical Systems Engineering major will have four available track options: General, Hardware, Computation & Security Tracks.

General Track: offers a general focus of course content with classes from each of the three tracks. There are no specific required or elective courses for this track.

Students in the Cyber-Physical Systems Engineering major will take 4 senior elective courses in the spring semester of their senior year. The specific elective course offerings will vary each spring semester. The general elective course sequence will be a combination of four of the following courses:

ENEB443 Hardware/Software Security for Embedded Systems

ENEB451 Network Security

ENEB452 Advanced Software for Connected Embedded Systems

ENEB453 Web-Based Application Development

ENEB455 Advanced FPGA System Design Using Verilog for Embedded Systems

ENEB456 Machine Learning Tools

ENEB457 Foundations of Databases for Web Applications

Hardware Track (12 credits): is focused primarily on the physical layer of devices, and concentrates on operations performed at the device level.

- Required Course:
  - ENEB455 Advanced FPGA System Design Using Verilog (3 credits)
- Elective Courses (must select 3 out of the following courses):
  - ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)
  - ENEB451 Network Security (3 credits)
  - ENEB452 Advanced Software for Connected Embedded Systems (3 credits)
  - ENEB453 Web Based Application Development (3 credits)
  - ENEB456 Machine Learning Tools (3 credits)
  - ENEB457 Foundation of Databases for Web Applications (3 credits)

Computation Track (12 credits): focused at the modeling and software level, and specializes in data analytical methods and applications.

- Required Courses:
  - ENEB456 Machine Learning Tools (3 credits)
- Elective Courses (must select 3 out of the following courses):
  - ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)
  - ENEB451 Network Security (3 credits)
  - ENEB452 Advanced Software for Embedded Systems-Connected Systems (3 credits)
  - ENEB453 Web Based Application Development (3 credits)
  - ENEB455 Advanced FPGA System Design Using Verilog for Embedded Systems (3 credits)
  - ENEB457 Foundation of Databases for Web Applications (3 credits)

Security Track (12 credits): focused on security issues within cyber-physical systems, and examines the hardware and software aspects of data integrity, corruption, and threats.

- Required Courses:
  - ENEB451 Network Security (3 credits)
- Elective Courses (must select 2 out of the following courses):
  - ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)
  - ENEB452 Advanced Software for Embedded Systems-Connected Systems (3 credits)
  - ENEB453 Web Based Application Development (3 credits)
  - ENEB455 Advanced FPGA System Design Using Verilog (3 credits)
  - ENEB456 Machine Learning Tools (3 credits)
  - ENEB457 Foundation of Databases for Web Applications (3 credits)

List the intended student learning outcomes. In an attachment, provide the plan for assessing these outcomes.

Learning Outcomes
An ability to apply knowledge of computing, engineering, science, and mathematics to identify, analyze and solve complex engineering problems.
An ability to design, implement, and evaluate a computer#based system, process, component, or program that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
An ability to communicate effectively with a range of audiences.
An understanding of professional, ethical, legal, security, and social issues and responsibilities.
An ability to analyze the local and global impact of computing on individuals, organizations, and society.
An ability to function effectively on teams to accomplish a common goal.
An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
An ability to acquire and apply new knowledge, using appropriate learning strategies.

Program Modification Information

Impact on current students. It should be specifically acknowledged that students enrolled in the program prior to the effective date of any curriculum change may complete their program under the old requirements if they wish. The courses required must remain available, or suitable substitutions specifically designated.

There will be no impact to current students. The curriculum is unchanged.

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

N/A

Renaming Program

Provide a rationale for renaming the program.

ABET accreditation requires the word "Engineering". The previous name is too verbose and narrowly focused. The new name is more concise and better conveys the broad nature of this program of study.

Reviewer Comments

Mary Bell (mcbell) (Fri, 10 Jun 2022 16:52:46 GMT): Rollback: A meeting with the ECE advisory board is required before proceeding.

Mary Bell (mcbell) (Wed, 14 Sep 2022 17:37:33 GMT): updated the reason for the proposal to add for accreditation issues.

Key: 660

Program Change Request

Date Submitted: 09/12/22 12:39 pm

Viewing: **660 : Cyber-Physical Systems Engineering ~~Embedded Systems and Internet of Things Major~~**

Last approved: 03/07/22 3:15 pm

Last edit: 09/22/22 1:47 pm

Changes proposed by: Mary Bell (mcbell)

Catalog Pages Using this Program

Embedded Systems and Internet of Things Major

,Embedded Systems and Internet of Things Major at Shady Grove

Proposed Action	Rename Program ~~Curriculum Change~~
Program Name	

(josephj): Approved for D-ENEE Chair

4. 06/10/22 12:52 pm Mary Bell (mcbell): Rollback to Initiator

5. 09/12/22 2:08 pm Kathryn Weiland (kweiland): Approved for D-ENEE Curriculum Manager

6. 09/12/22 2:20 pm Adrianos Papamarcou (adrian): Approved for D-ENEE PCC Chair

7. 09/12/22 4:23 pm Joseph JaJa (josephj): Approved for D-ENEE Chair

8. 09/14/22 1:40 pm Mary Bell (mcbell): Approved for ENGR PCC Chair

9. 09/15/22 8:02 am Ken Kiger (kkiger): Approved for ENGR Dean

10. 09/30/22 4:35 pm Michael Colson (mcolson): Approved for Academic Affairs Curriculum Manager

11. 10/03/22 10:01 am Piotr Swistak (pswistak): Approved for Senate PCC Chair

Cyber-Physical Systems Engineering ~~Embedded Systems and Internet of Things Major~~

Program Status	Active
Effective Term	Fall 2022
Catalog Year	2022-2023
Program Level	Undergraduate Program
Program Type	Undergraduate Major
Delivery Method	On Campus

Departments

Department
Electrical and Computer Engineering

Colleges

College
The A. James Clark School of Engineering

Program/Major Code	07990
MHEC Inventory Program	Embedded Systems and Internet of Things
CIP Code	140999 - Computer Engineering, Other.
HEGIS	079900
MHEC Recognized Area(s) of Concentration	

Degree(s) Awarded

Degree Awarded
Bachelor of Science

If other, new
degree award:

Proposal Contact

Romel Gomez ~~Dr.Mel Gomez & Ms.Glenn Kasten-Sportes~~

Proposal Summary

~~As a new undergraduate program, the ESIOT program requires adjustments for the first 2 cohorts to conform to the ABET assessment guidelines, while maintaining the 62 creditlimit.Two math courses,ENEB345:Probability & Statistical Inference, andENEB346:Linear Algebra for Machine Learning Applications, have been added as required courses for ABET accreditationpurposes.~~Replace ~~Similarly, changes in~~ the program name from Bachelor ~~required courses and electives in the tracks, as well as the addition~~ of Science in Embedded Systems and Internet of Things ~~a general track option, are intended~~ to Bachelor of Science in Cyber-Physical Systems Engineering for accreditation consideration with ABET. ~~add flexibility to the program while maintaining the core educational objectives.~~

(PCC Log Number 22023) ~~21080)~~

Program and Catalog Information

Provide the catalog description of the proposed program. As part of the description, please indicate any areas of concentration or specializations that will be offered.

The Bachelor of Science in Cyber-Physical ~~Embedded~~ Systems Engineering ~~and Internet of Things~~ will provide students with a solid foundation in key emerging technologies of the Internet of Things (IoT), the ability to integrate devices into complete IoT systems, and an understanding of how IoT fits within the wider context of information and communications technology, including data analytics and cloud computing. At the senior level, students will ultimately be able to specialize in one of the following tracks: Hardware, Computation, or Security track or pursue a General track option that provides a focus on courses from the other three tracks. It is expected that graduates will be in high demand in such occupational areas as hardware/software developers, computer systems analysts, network architects and administrators, information security analysts, information systems analysts and computer programs.

Catalog Program Requirements:

First & Second Year

Prior to being admitted to the <u>Cyber-Physical</u> ~~Embedded~~ Systems <u>Engineering</u> ~~and Internet of Things~~ major, students should have completed the <u>Engineering</u> ~~Engineering~~ LEP gateway courses, basic math/science courses, lower-level General Education requirements, and at least 60 credits.

Course	Title	Credits
MATH140	Calculus I	4
MATH141	Calculus II	4
ENGL101	Academic Writing	3
CHEM135	General Chemistry for Engineers	3
PHYS161	General Physics: Mechanics and Particle Dynamics	3
PHYS260	General Physics: Vibration, Waves, Heat, Electricity and Magnetism	3
PHYS261	General Physics: Mechanics, Vibrations, Waves, Heat (Laboratory)	1
Programming Requirement [1]		2-4
ENES100	Introduction to Engineering Design	3
One of the following MATH2xx courses:		3-4
MATH246	Differential Equations for Scientists and Engineers	
MATH241	Calculus III	
MATH240	Introduction to Linear Algebra	
General Education Requirements/Additional Electives		28-31

[1]

Embedded systems will accept any of the following programming courses or their equivalents:

ENEE140

CMSC131

CMSC106

Any introductory course in C, C++, Java, or Python (student must submit the course to ECE Department for Evaluation)

Junior & Senior Year at Shady Grove

Junior Year

First Semester	Credits	Second Semester	Credits
ENEB302	4	ENEB304	3
ENEB344	4	ENEB352	3
ENEB354	3	ENEB353	3
ENEB340	3	ENEB355	3
ENEB341	3	ENEB345	3
	17		15

Senior Year

First Semester	Credits	Second Semester	Credits
ENEB408 (ENEB408A Capstone Design I)	3	ENEB408 (ENEB408B Capstone Design II)	3

Junior Year

First Semester	Credits	Second Semester	Credits
ENEB454	3	Senior Level Electives (based on track)	12
ENEB444	3		
ENEB346 (Linear Algebra for Machine Learning Applications)	3		
Professional Writing	3		
	15		15

Total Credits 62

Tracks

Hardware Track

Course	Title	Credits
Required Courses		
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	3
Elective Courses		9
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB451	Network Security	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development	
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	
ENEB457	Foundations of Databases for Web Applications	
Total Credits		12

Computational Track

Course	Title	Credits
Required Courses		
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	3
Elective Courses		9
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB451	Network Security	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development (Web Based Application Development)	
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	
ENEB457	Foundations of Databases for Web Applications	
Total Credits		12

Security Track

Course	Title	Credits
Required Courses		
ENEB451	Network Security	3
Elective Courses		9
Select three of the following:		
ENEB443	Hardware/Software Security for Embedded Systems	
ENEB452	Advanced Software for Connected Embedded Systems	
ENEB453	Web-Based Application Development	
ENEB455	Advanced FPGA System Design using Verilog for Embedded Systems	
ENEB456	Course ENEB456 Not Found (Machine Learning Tools)	
ENEB457	Foundations of Databases for Web Applications (Foundations of Databases for Web Applications)	
Total Credits		12

General Track

The General Track offers a general focus of course content with classes from each of the three tracks. While there are no specific required or elective courses for this track, the General Track requires 12 credits, which is the same as the other three tracks. Consult with an advisor for details.

Sample plan. Provide a term by term sample plan that shows how a hypothetical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate. For undergraduate programs, this should be the four-year plan.

SAMPLE ACADEMIC PLAN

FIRST AND SECOND YEAR

Prior to being admitted to the Cyber-Physical Systems Engineering ~~Embedded System~~ major, students should have completed the Engineering ~~Engineering~~ LEP gateway courses, basic math/science courses, lower-level General Education requirements, and at least 60 credits.

MATH140: Calculus I (4 credits)

MATH141: Calculus II (4 credits)

MATH2xx: Students may select one of the following courses:

MATH246 Differential Equations (3 credits)

MATH241 Calculus III (4 credits)

MATH240 Linear Algebra (3 credits)

PHYS161: General Physics, Mechanics and Particles Dynamics (3 credits)

PHYS260/261: General Physics, Electrodynamics, Light, Relativity & Modern Physics (4 credits)

CHEM135: General Chemistry for Engineers (3 credits)

Programming Course Requirement (2-4 credits)

General Education Courses (23-31 credits)

JUNIOR YEAR – 1ˢᵗ Semester (17 credits)

ENEB302 Analog Circuits (4 credits)

ENEB340 Intermediate Programming Concepts and Applications for Embedded Systems (C/C++) (3 credits)

ENEB341 Introduction to Internet of Things (3 credits)

ENEB344 Digital Logic Design for Embedded Systems (4 credits)

ENEB354 Discrete Mathematics for Information Technology (3 credits)

JUNIOR YEAR – 2nd Semester (15 credits)

ENEB304 Microelectronics and Sensors (3 credits)

ENEB352 Introduction to Networks and Protocols (3 credits)

ENEB353 Computer Organization for Embedded Systems (3 credits)

ENEB355 Algorithms in Python (3 credits)

ENEB345 Probability & Statistical Inference (3 credits)

SENIOR YEAR – 1st Semester (15 credits)

ENEB408A Capstone Design Lab I (3 credits)

ENEB454 Embedded Systems (3 credits)

ENEB444 Operating Systems for Embedded Systems (3 credits)

ENEB346 Linear Algebra for Machine Learning Applications (3 credits)

ENGL3** Professional Writing (3 credits)

SENIOR YEAR – 2nd Semester (15 credits)

ENEE408B Capstone Design Lab II (3 credits)

ENEB4XX Senior General Electives (12 credits)

PROGRAM TRACKS

Students in the <u>Cyber-Physical Systems Engineering</u> ~~ESIOT~~ major will have four available track options: General, Hardware, Computation & Security Tracks.

General Track: offers a general focus of course content with classes from each of the three tracks. There are no specific required or elective courses for this track.

Students in the <u>Cyber-Physical</u> ~~Embedded~~ Systems <u>Engineering</u> major will take 4 senior elective courses in the spring semester of their senior year. The specific elective course offerings will vary each spring semester. The general elective course sequence will be a combination of four of the following courses:

ENEB443 Hardware/Software Security for Embedded Systems

ENEB451 Network Security

ENEB452 Advanced Software for Connected Embedded Systems

ENEB453 Web-Based Application Development

ENEB455 Advanced FPGA System Design Using Verilog for Embedded Systems

ENEB456 Machine Learning Tools

ENEB457 Foundations of Databases for Web Applications

Hardware Track (12 credits): is focused primarily on the physical layer of devices, and concentrates on operations performed at the device level.

Required Course:

ENEB455 Advanced FPGA System Design Using Verilog (3 credits)

Elective Courses (must select 3 out of the following courses):

ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)

ENEB451 Network Security (3 credits)

ENEB452 Advanced Software for Connected Embedded Systems (3 credits)

ENEB452 Advanced Software for Connected Embedded Systems (3 credits)

ENEB453 Web Based Application Development (3 credits)

ENEB456 Machine Learning Tools (3 credits)

ENEB457 Foundation of Databases for Web Applications (3 credits)

Computation Track (12 credits): focused at the modeling and software level, and specializes in data analytical methods and applications.

Required Courses:

ENEB456 Machine Learning Tools (3 credits)

Elective Courses (must select 3 out of the following courses):

ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)

ENEB451 Network Security (3 credits)

ENEB452 Advanced Software for Embedded Systems-Connected Systems (3 credits)

ENEB453 Web Based Application Development (3 credits)

ENEB455 Advanced FPGA System Design Using Verilog for Embedded Systems (3 credits)

ENEB457 Foundation of Databases for Web Applications (3 credits)

Security Track (12 credits): focused on security issues within cyber-physical systems, and examines the hardware and software aspects of data integrity, corruption, and threats.

Required Courses:

ENEB451 Network Security (3 credits)

Elective Courses (must select 2 out of the following courses):

ENEB443 Hardware/Software Security for Embedded Systems (3 Credits)

ENEB452 Advanced Software for Embedded Systems-Connected Systems (3 credits)

ENEB453 Web Based Application Development (3 credits)

ENEB455 Advanced FPGA System Design Using Verilog (3 credits)

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There will be no impact to current students. The curriculum is unchanged. ~~The proposed changes for this program will not negatively impact the students, but will rather work in their favor.The current students have not been able to choose a track due to limited resources and availability of courses.Instead, students are pursuing pre-selected courses that do not fit into one specific track.With the change to the general track option, current students will have less confusion about the tracks and how they fit into them and their uAchieve audits will match their accurate progress in the program.~~

Linked Programs

Indicate in the space below all programs to which this program is formally linked (e.g., approved combined bachelor's/master's programs, dual master's programs, or joint-programs with other universities). If the proposed modification will affect the linked program, provide as an attachment the new curriculum for each arrangement and provide supporting correspondence from the director of the linked program.

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Supporting Documents

Attachments

~~ESIOT Sample Four Semester Plan_F21.pdf~~

Administrative
Documents

Reviewer
Comments

Mary Bell (mcbell) (06/10/22 12:52 pm): Rollback: A meeting with the ECE advisory board is required before proceeding.

Mary Bell (mcbell) (09/14/22 1:37 pm): updated the reason for the proposal to add for accreditation issues.

Key: 660