Graduate Council Curriculum Report
The Graduate Council Curriculum Report (GCCR), which includes all graduate program curricular proposals approved through the Graduate Council curricular review process, is published 12 times each calendar year.

Questions/comments regarding the GCCR or its contents may be directed to the Director of Graduate Education Administration.

March 9, 2016

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2. **Program Change**: Business Administration – changes to M.B.A. foundation courses (Penn State Erie), page 22

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Note: Graduate course proposals approved through the Graduate Council curricular review process, as well as information about postbaccalaureate/graduate credit certificates approved by college/school administrators for graduate education, are published in the Senate Curriculum Report.
Graduate Council
Program, Option, or Minor Proposal Form

Submit 1 original, signed Graduate Council proposal form and 2 hardcopies of the graduate program proposal document, with a copy of the signed proposal form attached to each proposal copy, to the Curriculum Coordinator, University Faculty Senate, 101 Kern Graduate Building, University Park. The proposals will be transmitted to the Office of the Dean of the Graduate School for entry into the Graduate Council curricular review process; for more information about the process, see the Overview of the Graduate Council Curricular Review Process.

The Program Proposal Procedures provide guidance for the development of a graduate program proposal. If you have questions regarding the preparation of a graduate program proposal or how to complete this Graduate Council proposal form, contact the Office of the Dean of the Graduate School.

College/School: The Behrend College, Black School of Business
Department or Instructional Area: Master of Business Administration

New Graduate Program, Option, or Minor: □ Add
Designation of new graduate program: ____________________________
Classification of Instructional Programs (CIP) Code: ________________
Designation of new graduate option: ____________________________
Designation of new graduate minor: ____________________________

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Existing Graduate Program Option, or Minor: □ Change □ Drop
Current designation of graduate program: Master of Business Administration
Current designation of graduate option: ____________________________
Current designation of graduate minor: ____________________________

New designation of existing graduate program (if changing):
New designation of existing graduate option (if changing):
New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Change of GMAT admission requirement

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Submitted by Graduate Program Head
Dr. Al Warner
Printed name
Signature
Date: 11/12/15

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:
Dr. Melanie Hetzel-Riggin
Printed name
Signature
Date: 11/10/15

Approved by College/School Dean/Chancellor (or Designee):
Dr. Dawn Blasko
Printed name
Signature
Date: 11/16/15
Recommended by Chair, Graduate Council Subcommittee on New and Revised Programs and Courses:

On Behalf of Luis Ayala
Printed name
Signature
Date: 3/9/2016

Recommended by Chair, Graduate Council Committee on Programs and Courses:

On Behalf of Andris Freivalds
Printed name
Signature
Date: 3/9/2016

Noted by Dean of the Graduate School:

On Behalf of Regina Vasilatos-Younken
Printed name
Signature
Date: 3/9/2016
PROPOSED CHANGES TO MASTER OF BUSINESS ADMINISTRATION (B ADM)
PENN STATE BEHREND

Justification statement for GMAT changes to Master of Business Administration:

We are proposing to change the GMAT requirement for admissions for several reasons. First, GMAC (the Graduate Management Admissions Council) has noted that GMAT scores decline with age. A 2012 report showed that GMAT scores are, on average, about 130 points lower for 50 year+ applicants than for the under 20 age group. On the other hand, business experience is shown to contribute to success in an MBA program. Thus, the approach of requiring GMATs at a certain level regardless of age and experience may well be blocking very capable students from admission. Second, many of our peer institutions and those on a higher level have moved toward an experience based model similar to what is proposed here. The policy change is consistent with best practices at top schools.
REVISED BULLETIN LISTING:

**Business Administration (B ADM)**

[Program Home Page]

ALFRED G. WARNER, *Academic Director of the M.B.A. Program*

Penn State Behrend
5101 Jordan Road
Erie, PA 16563

**Degree Conferred:**

M.B.A.

[Graduate Faculty]

**The Program**

The Penn State Erie M.B.A. is a general degree emphasizing development of the planning and problem-solving skills crucial in middle and upper management. Course work emphasizes the integration of business functions and the practical application of theory in the business world, using cases, simulated problems and actual situations students are experiencing at work. Many students are fully employed professionals who bring a wealth of knowledge and experience to the classroom. Both full-time and part-time study are possible and the program can be completed by attending evening and daytime classes.

**Admission Requirements**

Admission is granted only to candidates who demonstrate high promise of success for graduate work. Requirements listed here are in addition to general Graduate School requirements stated in the **GENERAL INFORMATION** section of the *Graduate Bulletin*.

Applicants are required to take the [Graduate Management Admissions Test (GMAT)*](https://www.pearsonvue.com/gmat) administered by Pearson VUE on behalf of the Graduate Management Admission Council (GMAC).

Admission decisions are based on the following: undergraduate grade-point average; the degree of correspondence between the applicant's objectives and those of the program; three letters of reference; and GMAT score. Favorable consideration will be given to applicants who have significant work experience. A minimum GMAT score of 450 is required. However, admission is
competitive and higher scores may be required, depending on the qualifications of the applicants. Admission is open during the fall and spring semesters, as well as during the summer session.

Applicants must demonstrate proficiency in writing by having earned a grade of B or higher in a college English composition or writing course or by achieving a score of four or higher on the GMAT Analytical Writing Assessment. Students who fail to meet at least one of these two criteria must complete a college English composition or writing course and earn a grade of B or higher or retake the GMAT test and score four or higher on the Analytical Writing Assessment. This requirement must be satisfied during either the first semester or summer session of the student's matriculation.

*GMAT Waivers will be considered in the following circumstances:

- The applicant has a completed master’s degree, MD, JD or Ph.D. from a regionally accredited institution
- The applicant has post-graduate full-time professional work experience of 7 years or more
- The applicant has post-graduate full-time work experience of 3 to 7 years and an Undergraduate GPA of 3.3 or higher
- The applicant has less than three years of post-graduate full time work experience and an Undergraduate GPA of 3.6 or higher.

**Master's Degree Requirements**

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

The Master of Business Administration degree program consists of two parts:

**Demonstration of subject matter competence:** Students are expected to demonstrate fundamental competence in accounting, finance, economics, management, marketing, operations management, and statistics prior to taking the Required Courses. Applicants who have, within seven years prior to the date of their admission to degree candidacy, completed a baccalaureate degree in business from a regionally accredited institution that includes introductory courses in these disciplines will be considered to have demonstrated competence as long as the previously completed courses carry grades of B or higher. An applicant who, within seven years prior to his or her admission to degree candidacy, completed a baccalaureate degree in a non-business field from a regionally accredited institution that includes equivalent undergraduate or graduate courses carrying a grade of B or higher will also be considered to have demonstrated competence. Applicants who attained currency of knowledge through relevant business experience or continuing professional education in one or more of the subject areas may demonstrate competence through examination.

**Required Courses (21 credits):** These courses provide greater depth of knowledge in the subject areas included. This component of the MBA program consists of seven 3-credit courses that cover advanced topics in cost management, managing effective organizations, quantitative methods for business, leadership and ethics, corporate finance, marketing strategy, and strategic
management and business policy. The program capstone is B ADM 514 (3 credits), which is a semester long industry and business analysis problem, culminating in a final, integrated paper.

All students are required to complete the following courses: B ADM 510, B ADM 512, B ADM 513, B ADM 514, B ADM 526, B ADM 532 and B ADM 554 unless they can demonstrate advanced knowledge of the course subject matter through prior course work, extensive experience and/or advanced professional education. Students who believe they have knowledge of a required course must submit a written request and documentation describing their knowledge of the course subject matter. If approved, the student will substitute an additional elective course for the required course.

Elective Courses (9 credits): All students are required to take 9 credits of elective courses covering advanced topics of their choice. MBA students may apply a maximum of 6 credits of approved 400-level course work toward elective requirements. Course work at the 400 level must be approved by the director of the MBA program and cannot have been used for another degree.

Transfer Credits: Students may transfer a maximum of 10 credits from another regionally accredited graduate program or recognized degree-granting institution to fulfill elective and/or required courses. Application of transfer credits to the student's academic program must be approved by the director of the MBA program and be in compliance with Graduate School requirements described in the GENERAL INFORMATION section of the Graduate Bulletin.

Student Aid

Graduate assistantships and other forms of student aid are described in the STUDENT AID section of the Graduate Bulletin. Students on graduate assistantships must adhere to the course load limits set forth in the Graduate Bulletin.

Courses

Graduate courses carry numbers from 500 to 599 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

BUSINESS ADMINISTRATION (B ADM):

ECONOMICS (ECON) course list

FINANCE (FIN) course list

INTERNATIONAL BUSINESS (INT B) course list

MANAGEMENT (MGMT) course list
MANAGEMENT INFORMATION SYSTEMS (MIS) course list

MARKETING (MKTG) course list

SUPPLY CHAIN MANAGEMENT (SCM) course list
M.B.A.--Additional Specific Requirements

Master of Business Administration degree programs are offered at the University Park campus, Penn State Great Valley, Penn State Harrisburg, and Penn State Erie.

University Park Campus--The purpose of the MBA program at the University Park campus is to develop professional managerial knowledge and skills as these are applied to decisions in complex organizations. The curriculum was developed by the graduate business faculty to blend technical rigor, managerial theory, and integrative learning experiences through case studies and other teaching methods.

A minimum of 48 graduate credits is required, with a minimum of 42 credits at the 500 level. Twenty-six credits must be in specific core courses. Also required are 22 credits in portfolio and breadth electives. Work for this degree may be started in the fall semester only. Applications for this AACSB-accredited M.B.A program must include the results of the Graduate Management Admission Test.

Penn State Harrisburg--The goals of the Harrisburg MBA program are to provide graduates with a foundation for personal and professional growth and lifelong learning; a firm grounding in the academic disciplines underlying the field of business; participative strengths; and decision making, problem solving, and critical thinking skills. Major emphasis is placed on the social, legal, and ethical context of business—particularly ethical values needed in the conduct of business. Program faculty place high value on teaching and currency of curriculum, an emphasis on oral and written communication, collaborative learning, and cross-functional integration of concepts. The students served by the MBA program are, primarily, employees of area business, government, and not-for-profit organizations who reside within the Capital Region and study on a part-time basis. However, either full- or part-time study is possible. The M.B.A. is also offered as a concurrent MBA/Ph.D. program with the College of Medicine at the Penn State Milton S. Hershey Medical Center Department of Pharmacology, and concurrent MBA/J.D. degree program with The Dickinson School of Law.

The M.B.A. requires a minimum of 30 graduate credits, and is offered at the college's Middletown campus and in Lancaster, Pennsylvania. Eighteen of these credits are in prescribed areas of business, including accounting, finance, management, marketing, and information systems. An additional 12 credits are elective, permitting students to select courses in such areas as e-business, human resource managements, financial analysis, or general business to meet their personal and professional goals. Depending on their level of preparation, some students may need to take additional course work beyond the baccalaureate to permit them to begin their advanced business studies with a common conceptual foundation and adequate understanding of the integrated nature of the business enterprise. Applications to this AACSB-accredited program must include results of the Graduate Management Admission Test and two letters of recommendation. In addition, applicants whose first language is not English or who have not received a prior degree from an institution in which the language of instruction was English must provide scores on the Test of English as a Foreign Language (TOEFL).
Penn State Erie--The Penn State Erie M.B.A. is a general degree emphasizing development of the planning and problem-solving skills crucial in middle and upper management. Course work emphasizes the integration of business functions and the practical application of theory in the business world, using simulated problems and actual situations students are experiencing at work. Many students are fully employed professionals who bring a wealth of knowledge and experience to the classroom. Both full- and part-time study is possible and the program can be completed by attending evening classes. The Master of Business Administration degree program requires a minimum of 30 credits, with at least 24 credits at the 500 level, and consists of two parts:

1. Required Courses (21 credits): These courses develop managerial competence in the subject areas included. This component of the MBA program consists of seven 3-credit courses that cover advanced topics in cost management, organizational behavior, quantitative methods, marketing strategy, finance, leadership and ethics, and strategic management and business policy. The program capstone is B ADM 514 (3 credits), which is a semester long industry and business analysis problem, culminating in a final, integrated paper.

2. Elective Courses (9 credits): All students are required to take 9 credits of elective courses covering advanced topics of their choice.

Penn State Great Valley--The M.B.A. at Great Valley's School of Graduate Professional Studies is designed to meet the needs of the working professional desiring to advance her or his career. The M.B.A. requires 45 credits for degree completion. Courses are categorized into four groups: core, advanced, elective, and capstone. Students may be exempt from up to 15 credits from the core courses based on academic preparation and test scores. Students entering the program are expected to meet preprogram requirements that build a foundation for effective communication skills and quantitative analysis.

In addition to the general M.B.A. program, options are available in Biotechnology and Health Industry Management, and New Ventures and Entrepreneurial Studies. Classes are offered evenings and Saturdays in seven-week sessions, and the program may be completed in as little as 18 months. M.B.A. students are admitted year-round at the beginning of each of the seven-week sessions. Applications must include the results of a Graduate Management Admissions Test. For more information, refer to the Web at http://www.gv.psu.edu (Opens New Window).
REVISED CHANGES TO PENN STATE BEHREND WEBSITE:

How to apply to the MBA Program

Requirements:

To be considered for enrollment in the MBA program at Penn State Behrend, you must have received a bachelor's degree from a regionally-accredited institution under residence and credit conditions substantially equivalent to those required by Penn State. International applicants should hold a tertiary (postsecondary) degree that is deemed comparable to a four-year bachelor’s degree from a regionally-accredited U.S. institution. International applicants are required to submit English proficiency test scores, unless they are from one of the countries listed as exempt in the Graduate Bulletin.

Admission decisions are based on undergraduate grade-point average, Graduate Management Admission Test (GMAT*) scores, recommendations, and our assessment of how well the applicant's objectives match those of the program. Admission to the MBA program is granted jointly by The Graduate School of Penn State University and Penn State Behrend’s Black School of Business.

To Apply:

You may apply for admission to Penn State Behrend's MBA program each of the three semesters of the academic year (fall, spring, and summer). Click here for important application deadlines and semester dates. You can submit the online application prior to taking the GMAT*.

Applicants to both the Pittsburgh and Erie programs:

Summer 2015 - Apply now; your entire application portfolio is due April 7. Take the GMAT* by April 6
Fall 2015 - Apply now; your entire application portfolio is due June 22. Take the GMAT* by June 20
Spring 2016 - Apply now; your entire application portfolio is due Nov. 17. Take the GMAT* before or by Nov. 16

1. Submit Penn State’s Graduate School Online Application.

If you are ready to proceed to the application but have NOT read the Graduate School requirements, please visit that website.

If you have read both the Graduate School requirements and the Black School of Business MBA requirements (below) and are ready to apply, you may proceed to the application.

Note that once you submit your application, you can still access it to upload documents.

- Skip questions you don't know such as Jr./Sr. GPA, GMAT scores, etc.

2. Submit a Statement of Purpose: The statement should address the following:

- Why have you chosen to pursue the Penn State Behrend MBA?
- How will these studies help you achieve your personal and professional goals?
- How will your participation contribute to the Penn State Behrend MBA program?
- Indicate your current, or most recent, work responsibilities.

* Once completed, upload as a Word document to the online application.
3. **Upload official transcripts (effective Nov. 10, 2014).** If you already submitted transcripts, we will forward these to the Graduate School.

- Transcripts are required from all undergraduate and graduate institutions attended. Penn State alumni do not need to request transcripts for credits earned at Penn State, but must list Penn State as part of your academic history.

- Upload a copy of an official transcript from each institution attended, regardless of the number of credits or semesters completed. Transcripts not in English must be accompanied by a certified translation. Upon admission and your acceptance of admission, you will be asked to send an additional official transcript. You will receive instructions at that time, directly from the Graduate School.

4. **Submit contact information for three individuals who will complete the online references/recommendation form.**

The MBA program requires three references from academic or professional sources. Current undergraduate students are required to have faculty within their academic school submit all three recommendations. Register each individual and their email addresses on the online application; they will receive an email directing them to complete a web-based form. Recommenders will not be sent an email until you have submitted the application; allow them plenty of time to meet the application deadline.

5. **Submit GMAT* scores.**

GMAT* scores are required of all applicants unless you fall into one of the waiver categories listed below. The GMAT* must have been taken within five years of applying to the MBA program. The GMAT* score that is required is based on each applicant's GPA. Individuals whose Undergraduate GPA was 3.0 or greater will be required to provide a minimum, total GMAT* score of 450.

On the day of GMAT* testing:

- Select Pennsylvania State University as a score recipient; after fourteen days the official school copy can be accessed by Graduate Admissions.

*GMAT/GRE Waivers will be considered in the following circumstances:

- The applicant has a completed master’s degree, MD, JD or Ph.D. from a regionally accredited institution
- The applicant has post-graduate full-time professional work experience of 7 years or more
- The applicant has post-graduate full-time work experience of 3 to 7 years and an Undergraduate GPA of 3.3 or higher
- The applicant has less than three years of post-graduate full time work experience and an Undergraduate GPA of 3.6 or higher.

[Click here for more information on the GMAT exam and GMAT workshops on the Erie campus and in Pittsburgh.](#)

6. **Individuals with international credentials,** click here for additional requirements.
TO: Balaji Rajagopalan  
FROM: Ash Deshmukh  
RE: Support for changes in the MBA admission requirements  
DATE: August 17, 2015

I have reviewed the proposed changes to the MBA admission requirements. We have circulated those to the Graduate Curriculum Committee and no revisions were required or suggested. I support and approve those changes. I believe these changes will help in attracting prospective students to the program.

Thank you.

J.V. Deshmukh

Approved

Balaji

8/18/15
Hi Alice,

Thanks for the follow-up email. Per our phone conversation, the changes you mention below will not impact SARI@PSU requirements for the MBA program.

Best regards,

Brad R. Woods, Ph.D.
Research Ethics Educator
Office for Research Protections
The 330 Building
Suite 205
The Pennsylvania State University
University Park, PA 16802
BRW150@psu.edu

Mr. Woods,

Good day. The Erie Master of Business Administration program will be submitting a change to GMAT admissions requirements. We would like to make sure that this change will not impact the SARI requirements of the program.

Thank you,

Alice

Alice Puzarowski
Penn State Erie, The Behrend College
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg135@psu.edu
Alice L. Puzarowski

From: Brian Cameron <bcameron@smeal.psu.edu>
Sent: Friday, August 28, 2015 2:40 PM
To: Alice L. Puzarowski
Subject: RE: curriculum review for PSU Erie MBA program

Hello Alice

I have reviewed the document and have no questions or concerns. Please let me know if you need anything more at this time.

Best regards,

Brian Cameron

From: Alice L. Puzarowski [mailto:alg135@psu.edu]
Sent: Friday, August 28, 2015 8:24 AM
To: Brian Cameron
Subject: curriculum review for PSU Erie MBA program

Mr. Cameron,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make an admission change involving the GMAT requirement. Dr. Al Warner, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Friday September 11, 2015 at 12:00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice
Alice Puzarowski

Administrative Support Assistant

Penn State Erie, The Behrend College
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg138@psu.edu
Phone: 814-898-6200
Fax: 814-898-6223
Alice L. Puzarowski

From: Steve Schappe <sxs28@psu.edu>
Sent: Friday, September 04, 2015 3:50 PM
To: Alice L. Puzarowski
Cc: ALFRED WARNER; Tawatnuntachai, Oranee
Subject: Re: curriculum review for PSU Erie MBA program

Dear Alice,

Thank for the opportunity to review your proposed changes to the admission requirements for your MBA program.

We have no objections and are pleased to support the proposed changes.

Regards,
Steve

From: "Alice L. Puzarowski" <alg135@psu.edu>
To: "Steve Schappe" <sxs28@psu.edu>
Sent: Friday, August 28, 2015 8:24:25 AM
Subject: curriculum review for PSU Erie MBA program

Dr. Schappe,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make an admission change involving the GMAT requirement. Dr. Al Warner, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Friday September 11, 2015 at 12:00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice
Alice Puzarowski

Administrative Support Assistant

Penn State Erie, The Behrend College

Black School of Business, Burke 281

5101 Jordan Road, Erie PA 16563-1701

alg135@psu.edu

Phone: 814-898-6200

Fax: 814-898-6223
Dr. Duhala,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make an admission change involving the GMAT requirement. Dr. Al Warrier, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Friday September 11, 2015 at 12.00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice

Alice Puzarowski
Administrative Support Assistant
Penn State Erie, The Behrend College
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16568-1701
alg135@psu.edu
Phone: 814-898-6200
Fax: 814-898-6223

No response received—implies approval

9/14/15

Alice L. Puzarowski
The committee has no comments or questions regarding this proposal thus the committee supports the proposal.

Matt Swinarski

To the Curricular Affairs Committee:

Good morning. The Black School of Business requests that you please review the attached Master of Business Administration admission change. We would appreciate if you could email your comments or questions to Mr. Matt Swinarski no later than Friday September 11th at 12noon. If you do not respond, Mr. Swinarski will assume that you are in support the proposal.

Mr. Swinarski, once you receive all the comments and/or questions, could you please send me an email stating the general consensus of the committee that will be included with the proposal as it heads to the Graduate School Committee.

Thank you,
Alice

---

Alice Puzarowski
Penn State Erie, The Behrend College
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg135@psu.edu
Graduate Council
Program, Option, or Minor Proposal Form

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The Program Proposal Procedures provide guidance for the development of a graduate program proposal. If you have questions regarding the preparation of a graduate program proposal or how to complete this Graduate Council proposal form, contact the Office of the Dean of the Graduate School.

College/School: The Behrend College - Black School of Business
Department or Instructional Area: Master of Business Administration

New Graduate Program, Option, or Minor: □ Add

Designation of new graduate program:

Classification of Instructional Programs (CIP) Code:

Designation of new graduate option:

Designation of new graduate minor:

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Existing Graduate Program Option, or Minor: □ Change □ Drop

Current designation of graduate program: Master of Business Administration

Current designation of graduate option:

Current designation of graduate minor:

New designation of existing graduate program (if changing):

New designation of existing graduate option (if changing):

New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Removal of Foundation Courses

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Submitted by Graduate Program Head

Dr. Alfred G. Warner
Printed name
Signature
Date: 11/30/15

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:

Dr. Melanie Hetzel-Riggin
Printed name
Signature
Date: 12-7-15

Approved by College/School Dean/Chancellor (or Designee):

Dr. Dawn Blasko
Printed name
Signature
Date: 12-14-15
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<th>Role</th>
<th>Name</th>
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<td>Recommended by Chair, Graduate Council Subcommittee on New and Revised Programs and Courses:</td>
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<td>On Behalf of Luis Ayala</td>
<td>Vawterkitt</td>
<td>3/12/2014</td>
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<td>Vawterkitt</td>
<td>3/12/2016</td>
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<td>On Behalf of Regina Vasilatos-Younken</td>
<td>Vawterkitt</td>
<td>3/12/2016</td>
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MBA Program Revision Justification

We are proposing to modify the pre-requisites to the core classes of the Behrend MBA program by eliminating the 15 credit of Foundation courses. This change will not affect the core curriculum in any way.

We have three reasons for this. First, online programs such as the University of Illinois-Champaign are beginning to offer foundation course type classes at low cost and as an entrée into that MBA program. Competitively, we need to be more versatile and cost effective with our own course structure to defend our market.

Second, the 15 hours of the Foundation courses are in addition to the core 30 hours of the MBA and require another year in the program. Moreover, as they are pre-requisites, they are not applied toward completion of the degree as such. This has dissuaded potential students who do compare program durations. The change will allow us to find ways to accelerate their program pace and tie them more closely to admission.

Third, the Foundation classes are relatively small and thus are a drain on faculty resources. In general, class size is 10 to 15 students when we prefer 25-35. Terminating these classes will free up faculty resources.

The Foundation courses were designed to create competence in students without a background in business academic disciplines sufficient to succeed in the core classes of the MBA program. We will use the approach Harvard Business School does with their own incoming MBA students who have deficiencies in certain areas and offer self-taught and paced modules in specific disciplines. We will source those from HBS and other organizations.

We expect that this revision will free up faculty resources and generate additional demand for the program. Based on recruiting interviews, we believe this will be especially attractive to students who fund their own educations. We anticipate as much as 10% growth in the program due to this change.
REVISED BULLETIN LISTING:

Business Administration (B ADM)

[Program Home Page]

ALFRED G. WARNER, Academic Director of the M.B.A. Program
Penn State Behrend
5101 Jordan Road
Erie, PA 16563

Degree Conferred:

M.B.A.

[Graduate Faculty]

The Program

The Penn State Erie M.B.A. is a general degree emphasizing development of the planning and problem-solving skills crucial in middle and upper management. Course work emphasizes the integration of business functions and the practical application of theory in the business world, using cases, simulated problems and actual situations students are experiencing at work. Many students are fully employed professionals who bring a wealth of knowledge and experience to the classroom. Both full-time and part-time study are possible and the program can be completed by attending evening and daytime classes.

Admission Requirements

Admission is granted only to candidates who demonstrate high promise of success for graduate work. Requirements listed here are in addition to general Graduate School requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Applicants are required to take the Graduate Management Admissions Test (GMAT)* administered by Pearson VUE on behalf of the Graduate Management Admission Council (GMAC).

Admission decisions are based on the following: undergraduate grade-point average; the degree of correspondence between the applicant's objectives and those of the program; three letters of reference; and GMAT score. Favorable consideration will be given to applicants who have significant work experience. A minimum GMAT score of 450 is required. However, admission is
competitive and higher scores may be required, depending on the qualifications of the applicants. Admission is open during the fall and spring semesters, as well as during the summer session.

Applicants must demonstrate proficiency in writing by having earned a grade of B or higher in a college English composition or writing course or by achieving a score of four or higher on the GMAT Analytical Writing Assessment. Students who fail to meet at least one of these two criteria must complete a college English composition or writing course and earn a grade of B or higher or retake the GMAT test and score four or higher on the Analytical Writing Assessment. This requirement must be satisfied during either the first semester or summer session of the student's matriculation.

*GMAT Waivers will be considered in the following circumstances:

- The applicant has a completed master’s degree, MD, JD or Ph.D. from a regionally accredited institution
- The applicant has post-graduate full-time professional work experience of 7 years or more
- The applicant has post-graduate full-time work experience of 3 to 7 years and an Undergraduate GPA of 3.3 or higher
- The applicant has less than three years of post-graduate full time work experience and an Undergraduate GPA of 3.6 or higher.

**Master's Degree Requirements**

Requirements listed here are in addition to requirements stated in the [DEGREE REQUIREMENTS](#) section of the *Graduate Bulletin*.

The Master of Business Administration degree program consists of two parts:

**Demonstration of subject matter competence:** Students are expected to demonstrate fundamental competence in accounting, finance, economics, management, marketing, operations management, and statistics prior to taking the Required Courses. Applicants who have, within seven years prior to the date of their admission to degree candidacy, completed a baccalaureate degree in business from a regionally accredited institution that includes introductory courses in these disciplines will be considered to have demonstrated competence as long as the previously completed courses carry grades of B or higher. An applicant who, within seven years prior to his or her admission to degree candidacy, completed a baccalaureate degree in a non-business field from a regionally accredited institution that includes equivalent undergraduate or graduate courses carrying a grade of B or higher will also be considered to have demonstrated competence. Applicants who attained currency of knowledge through relevant business experience or continuing professional education in one or more of the subject areas may demonstrate competence through examination.

**Required Courses (21 credits):** These courses provide greater depth of knowledge in the subject areas included. This component of the MBA program consists of seven 3-credit courses that cover advanced topics in cost management, managing effective organizations, quantitative methods for business, leadership and ethics, corporate finance, marketing strategy, and strategic
management and business policy. The program capstone is B ADM 514 (3 credits), which is a semester long industry and business analysis problem, culminating in a final, integrated paper.

All students are required to complete the following courses: B ADM 510, B ADM 512, B ADM 513, B ADM 514, B ADM 526, B ADM 532 and B ADM 554 unless they can demonstrate advanced knowledge of the course subject matter through prior course work, extensive experience and/or advanced professional education. Students who believe they have knowledge of a required course must submit a written request and documentation describing their knowledge of the course subject matter. If approved, the student will substitute an additional elective course for the required course.

_Elective Courses (9 credits):_ All students are required to take 9 credits of elective courses covering advanced topics of their choice. MBA students may apply a maximum of 6 credits of approved 400-level course work toward elective requirements. Course work at the 400 level must be approved by the director of the MBA program and cannot have been used for another degree.

_Transfer Credits:_ Students may transfer a maximum of 10 credits from another regionally accredited graduate program or recognized degree-granting institution to fulfill elective and/or required courses. Application of transfer credits to the student's academic program must be approved by the director of the MBA program and be in compliance with Graduate School requirements described in the [GENERAL INFORMATION section of the Graduate Bulletin](#).

**Student Aid**

Graduate assistantships and other forms of student aid are described in the [STUDENT AID section of the Graduate Bulletin](#). Students on graduate assistantships must adhere to the [course load limits set forth in the Graduate Bulletin](#).

**Courses**

Graduate courses carry numbers from 500 to 599 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

**BUSINESS ADMINISTRATION (B ADM):**

[ECONOMICS (ECON) course list](#)

[FINANCE (FIN) course list](#)

[INTERNATIONAL BUSINESS (INT B) course list](#)

[MANAGEMENT (MGMT) course list](#)
MANAGEMENT INFORMATION SYSTEMS (MIS) course list

MARKETING (MKTG) course list

SUPPLY CHAIN MANAGEMENT (SCM) course list
M.B.A.--Additional Specific Requirements

Master of Business Administration degree programs are offered at the University Park campus, Penn State Great Valley, Penn State Harrisburg, and Penn State Erie.

University Park Campus--The purpose of the MBA program at the University Park campus is to develop professional managerial knowledge and skills as these are applied to decisions in complex organizations. The curriculum was developed by the graduate business faculty to blend technical rigor, managerial theory, and integrative learning experiences through case studies and other teaching methods.

A minimum of 48 graduate credits is required, with a minimum of 42 credits at the 500 level. Twenty-six credits must be in specific core courses. Also required are 22 credits in portfolio and breadth electives. Work for this degree may be started in the fall semester only. Applications for this AACSB-accredited M.B.A program must include the results of the Graduate Management Admission Test.

Penn State Harrisburg--The goals of the Harrisburg MBA program are to provide graduates with a foundation for personal and professional growth and lifelong learning; a firm grounding in the academic disciplines underlying the field of business; participative strengths; and decision making, problem solving, and critical thinking skills. Major emphasis is placed on the social, legal, and ethical context of business—particularly ethical values needed in the conduct of business. Program faculty place high value on teaching and currency of curriculum, an emphasis on oral and written communication, collaborative learning, and cross-functional integration of concepts. The students served by the MBA program are, primarily, employees of area business, government, and not-for-profit organizations who reside within the Capital Region and study on a part-time basis. However, either full- or part-time study is possible. The M.B.A. is also offered as a concurrent MBA/Ph.D. program with the College of Medicine at the Penn State Milton S. Hershey Medical Center Department of Pharmacology, and concurrent MBA/J.D. degree program with The Dickinson School of Law.

The M.B.A. requires a minimum of 30 graduate credits, and is offered at the college's Middletown campus and in Lancaster, Pennsylvania. Eighteen of these credits are in prescribed areas of business, including accounting, finance, management, marketing, and information systems. An additional 12 credits are elective, permitting students to select courses in such areas as e-business, human resource managements, financial analysis, or general business to meet their personal and professional goals. Depending on their level of preparation, some students may need to take additional course work beyond the baccalaureate to permit them to begin their advanced business studies with a common conceptual foundation and adequate understanding of the integrated nature of the business enterprise. Applications to this AACSB-accredited program must include results of the Graduate Management Admission Test and two letters of recommendation. In addition, applicants whose first language is not English or who have not received a prior degree from an institution in which the language of instruction was English must provide scores on the Test of English as a Foreign Language (TOEFL).
Penn State Erie--The Penn State Erie M.B.A. is a general degree emphasizing development of the planning and problem-solving skills crucial in middle and upper management. Course work emphasizes the integration of business functions and the practical application of theory in the business world, using simulated problems and actual situations students are experiencing at work. Many students are fully employed professionals who bring a wealth of knowledge and experience to the classroom. Both full- and part-time study is possible and the program can be completed by attending evening classes. The Master of Business Administration degree program requires a minimum of 30 credits, with at least 24 credits at the 500 level, and consists of two parts:

1. Required Courses (21 credits): These courses develop managerial competence in the subject areas included. This component of the MBA program consists of seven 3-credit courses that cover advanced topics in cost management, organizational behavior, quantitative methods, marketing strategy, finance, leadership and ethics, and strategic management and business policy. The program capstone is B ADM 514 (3 credits), which is a semester long industry and business analysis problem, culminating in a final, integrated paper.

2. Elective Courses (9 credits): All students are required to take 9 credits of elective courses covering advanced topics of their choice.

Penn State Great Valley--The M.B.A. at Great Valley's School of Graduate Professional Studies is designed to meet the needs of the working professional desiring to advance her or his career. The M.B.A. requires 45 credits for degree completion. Courses are categorized into four groups: core, advanced, elective, and capstone. Students may be exempt from up to 15 credits from the core courses based on academic preparation and test scores. Students entering the program are expected to meet preprogram requirements that build a foundation for effective communication skills and quantitative analysis.

In addition to the general M.B.A. program, options are available in Biotechnology and Health Industry Management, and New Ventures and Entrepreneurial Studies. Classes are offered evenings and Saturdays in seven-week sessions, and the program may be completed in as little as 18 months. M.B.A. students are admitted year-round at the beginning of each of the seven-week sessions. Applications must include the results of a Graduate Management Admissions Test. For more information, refer to the Web at http://www.gv.psu.edu (Opens New Window).
Hello Alice

I’ve reviewed the document and proposed changes and we have no comments or concerns. Best of luck with your program revisions.

Best regards,

Brian

---

Mr. Cameron,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make a program change involving the Foundation Courses. Dr. Al Warner, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Wednesday, November 25, 2015 at 12:00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice
Re: Curriculum review for Behrend MBA

From: Steve Schappe <sxs28@psu.edu>
Subject: Re: Curriculum review for Behrend MBA
To: Al Warner <alfredgwarner@gmail.com>
Cc: BALAJI RAJAGOPALAN <bur14@psu.edu>, ALICE LYNN GATHERS <alg135@psu.edu>

Wed, Dec 02, 2015 02:07 PM

Thanks, Al.

We wrestled with some of these same issues when we were revising our MBA, so I thought our observations might help. The comments aren't anything that would prevent our supporting the proposal, and I had (rightfully) assumed that there was more thought behind what appeared in the proposal itself.

Let me know if you're looking for supportive comments, and I'll send them in a separate message.

Good luck with the process.

--Steve

From: "Al Warner" <alfredgwarner@gmail.com>
To: "Steve Schappe" <sxs28@psu.edu>
Cc: "BALAJI RAJAGOPALAN" <bur14@psu.edu>, "ALICE LYNN GATHERS" <alg135@psu.edu>
Sent: Wednesday, December 2, 2015 1:50:55 PM
Subject: Curriculum review for Behrend MBA

Steve, thank you for your comments and questions. I'll do my best to address them.

For a number of years, we've been using, on a limited basis, the same prep classes the Harvard MBA program uses for their incoming students with perceived deficiencies in certain topics. We have found the results to be entirely satisfactory in terms of getting students ready to engage at a high level in the core classes. Those prep classes were limited to quant skills: accounting, finance, and statistics.

Thus, over the past year, we have been experimenting with a set of preparatory courses from Association of Professional Business Management (APBM) which offers intensive background work in other disciplines such as management, marketing, and operations. They were developed by a set of Harvard MBA graduates with an eye toward improving readiness and we have been satisfied with the results here as well. So, we believe we can make this transition to helping
students be ready for the core program faster than they could before.

In fact, this speaks directly to the question you raise about missing parts of the foundation. In the past, a student missing operations would have had to take that undergrad course OR take BADM502 (a six hour course covering management, marketing, and ops) - even if he or she had the first two done. We think this was a barrier to acceptance by students and that it will improve our yield because meeting the requirement through the partnership with HBS and APBM will be much faster and less costly.

We regard these programs as equivalent coursework. I hope this answers your questions.

Regards-

Al

--

Alfred G. Warner
Associate Professor
Academic Director, MBA Program
Black School of Business
Penn State Erie
agw2@psu.edu
814-898-6509
Re: curriculum review for PSU Behrend MBA program

From: Steve Schappe <sxs28@psu.edu>            Wed, Dec 02, 2015 01:17 PM
Subject: Re: curriculum review for PSU Behrend MBA program
To: Alice L. Puzarowski <alg135@psu.edu>

Dear Alice,

I neglected to reply to you before the Thanksgiving Break as requested, but I hope my comments are still useful to you in this process.

Having just completed our own MBA revision, some of the issues presented in the proposal are familiar to us. In particular, the academic backgrounds of our incoming students (business vs. non-business) played an important part in our discussions. In our case, we recognized the need to provide both the foundation courses as well as required/elective courses. It is from this perspective that I offer the following comments:

- This revised MBA would limit admission to students with a business baccalaureate degree or equivalent coursework. Do current/projected student backgrounds suggest that engineering students (a significant group for us) and other non-business students won't be a significant potential enrollment loss? Conversely, if they would still like to enroll, will they have convenient access to the foundation coursework at other institutions? (The risk is that students who take these pre-admission courses elsewhere will opt to stay and complete their degree at these other institutions).
- What happens if students do not have the complete foundation (e.g., they're missing Operations Management -- will they still be admitted or allowed to take MBA courses)?

I recognize that these observations come from our own experience, but I hope it is helpful for me to share them.

Kind Regards,
Steve

Stephen P. Schappe, Ph.D.
Director, School of Business Administration
777 W. Harrisburg Pike
Middletown, PA 17057
717-948-6141
http://hbq.psu.edu/sba

PENNSTATE
Harrisburg
From: "Alice L. Puzarowski" <alg135@psu.edu>
To: "Steve Schappe" <sxs28@psu.edu>
Sent: Tuesday, November 10, 2015 12:50:18 PM
Subject: curriculum review for PSU Behrend MBA program

Mr. Schappe,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make a program change involving the Foundation Courses. Dr. Al Warner, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Wednesday, November 25, 2015 at 12:00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice

Alice Puzarowski
Penn State Behrend
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg135@psu.edu
Phone: 814-898-6200
Fax: 814-898-6223
curriculum review for PSU Behrend MBA program

From: Alice L. Puzarowski <alg135@psu.edu>  
Subject: curriculum review for PSU Behrend MBA program  
To: kxd27@psu.edu  
Cc: ALFRED WARNER <agw2@psu.edu>

Dr. Duhala,

Good day. My name is Alice Puzarowski and I work in the Black School of Business at Penn State Erie, The Behrend College. Our Master of Business Administration Program would like to make a program change involving the Foundation Courses. Dr. Al Warner, the Academic chair, respectfully requests your assistance in the external review of this change.

I have attached the proposal, which includes a justification statement. We ask that you review the document and reply to this e-mail with any comments or questions no later than Wednesday, November 25, 2015 at 12:00PM.

We appreciate you taking time out of your busy schedule to assist the MBA program’s initiative and growth.

Sincerely,

Alice

Alice Puzarowski  
Penn State Behrend  
Black School of Business, Burke 281  
5101 Jordan Road, Erie PA 16563-1701  
alg135@psu.edu  
Phone: 814-898-6200  
Fax: 814-898-6223

---

MBA Program Revision 102315.docx

22 KB

NO response received - implies approval  
12/2/15

[Signature]
Dear Alice,

According to my review of your proposed program change, you are only eliminating the program’s foundation courses. The three components that Erie’s MBA program uses to meet SARI@PSU criteria will remain intact. I have these listed as: 1) Online orientation discussions; 2) BADM 510; and 3) BADM 526.

According to your SARI@PSU Program Plan, these courses satisfy the requirement for students in that program. If my interpretation of your proposal is accurate, your proposed change does not impact requirements of the SARI@PSU program.

If this is correct, nothing further is needed from our office.

Please let me know if you have any additional questions or concerns,

Best,

Brad R. Woods, Ph.D.
Research Ethics Educator
Office for Research Protections
The 330 Building
Suite 205
The Pennsylvania State University
University Park, PA 16802
BRW150@psu.edu

Mr. Woods,

Good morning. The Erie Master of Business Administration program will be submitting a program change for the removal of the Foundation Courses. We would like to make sure that this change will not impact the SARI requirements of the program. I have attached a copy of
the Bulletin correction complete with justification. Please contact Dr. Al Warner, agw2@psu.edu, if you have any questions.

Please send your response no later than 12noon on Friday, November 13. We appreciate your assistance and support.

Thank you,

Alice

_Alice Puzarowski_

_Administrative Support Assistant_

Penn State Behrend
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg135@psu.edu
Phone: 814-898-6200
Fax: 814-898-6223
Alice L. Puzarowski

From: ASHUTOSH V DESHMUKH <avd1@psu.edu>
Sent: Thursday, November 05, 2015 4:35 PM
To: Alice L. Puzarowski
Cc: ALFRED WARNER; Diane Parente; JEFFREY M COY; Jeffrey Pinto; PEERASIT PATANAKUL; Balaji Rajagopalan
Subject: Re: Master of Business Administration Curricular Program Change

Alice:

Based on the discussions we had, I will state that MBA changes has been approved, the committee supports the proposal. Thanks.

-Ash

From: "Alice L. Puzarowski" <alg135@psu.edu>
To: "ALFRED WARNER" <agw2@psu.edu>, "Ashutosh Deshmukh" <avd1@psu.edu>, "Diane Parente" <dhp3@psu.edu>, "JEFFREY M COY" <jmc87@psu.edu>, "Jeffrey Pinto" <jkp4@psu.edu>, "PEERASIT PATANAKUL" <pxp25@psu.edu>
Cc: "Balaji Rajagopalan" <bur14@psu.edu>
Sent: Friday, October 23, 2015 3:10:13 PM
Subject: Master of Business Administration Curricular Program Change

Good afternoon. Please review the attached Master of Business Administration program change. Just as a note, since the GMAT waiver proposal has not been officially approved, the bulletin listing is still based on the current listing. I would appreciate if you could email your comments and/or approval to Ash concerning the curricular change no later than Friday, November 6th at 12noon. If you do not respond, Ash will assume that you are in support the proposal.

Ash, once you receive all the comments, could you please send me an email of approval in order that I can forward to Balaji for final review?

Thank you,

Alice

Alice Puzarowski
Penn State Behrend
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
Alice L. Puzarowski

From: BALAJI RAJAGOPALAN <bur14@psu.edu>
Sent: Friday, November 06, 2015 8:42 AM
To: Alice L. Puzarowski
Subject: Re: Master of Business Administration Curricular Program Change

Alice, I support the proposal.

Regards,
Balaji

On Nov 6, 2015, at 8:35 AM, Alice L. Puzarowski <alg135@psu.edu> wrote:

Balaji,

Please review the attached document for the MBA Program Revision. The Graduate Curricular Committee supports the proposal. Please email your comments and/ approval to me by 12noon on Friday, November 20.

Thank you,
Alice

From: ASHUTOSH V DESHMUKH [mailto:avd1@psu.edu]
Sent: Thursday, November 05, 2015 4:35 PM
To: Alice L. Puzarowski <alg135@psu.edu>
Cc: ALFRED WARNER <agw2@psu.edu>; Diane Parente <dhp3@psu.edu>; JEFFREY M COY <jmc87@psu.edu>; Jeffrey Pinto <jkp4@psu.edu>; PEERASIT PATANAKUL <pxp25@psu.edu>; Balaji Rajagopalan <bur14@psu.edu>
Subject: Re: Master of Business Administration Curricular Program Change

Alice:

Based on the discussions we had, I will state that MBA changes has been approved, the committee supports the proposal. Thanks.

-Ash

From: "Alice L. Puzarowski" <alg135@psu.edu>
To: "ALFRED WARNER" <agw2@psu.edu>, "Ashutosh Deshmukh" <avd1@psu.edu>, "Diane Parente" <dhp3@psu.edu>, "JEFFREY M COY" <jmc87@psu.edu>, "Jeffrey Pinto" <jkp4@psu.edu>, "PEERASIT PATANAKUL" <pxp25@psu.edu>
Cc: "Balaji Rajagopalan" <bur14@psu.edu>
Sent: Friday, October 23, 2015 3:10:13 PM
Subject: Master of Business Administration Curricular Program Change
Good afternoon. Please review the attached Master of Business Administration program change. Just as a note, since the GMAT waiver proposal has not been officially approved, the bulletin listing is still based on the current listing. I would appreciate if you could email your comments and/or approval to Ash concerning the curricular change no later than Friday, November 6th at 12noon. If you do not respond, Ash will assume that you are in support the proposal.

Ash, once you receive all the comments, could you please send me an email of approval in order that I can forward to Balaji for final review?

Thank you,

Alice

Alice Puzarowski
Penn State Behrend
Black School of Business, Burke 281
5101 Jordan Road, Erie PA 16563-1701
alg135@psu.edu
Phone: 814-898-6200
Fax: 814-898-6223

<MBA Program Revision 102315.docx>
Graduate Council
Program, Option, or Minor Proposal Form

Submit 1 original, signed Graduate Council proposal form and 2 hardcopies of the graduate program proposal document, with a copy of the signed proposal form attached to each proposal copy, to the Curriculum Coordinator, University Faculty Senate, 101 Kern Graduate Building, University Park. The proposals will be transmitted to the Office of the Dean of the Graduate School for entry into the Graduate Council curricular review process; for more information about the process, see the Overview of the Graduate Council Curricular Review Process.

The Program Proposal Procedures provide guidance for the development of a graduate program proposal. If you have questions regarding the preparation of a graduate program proposal or how to complete this Graduate Council proposal form, contact the Office of the Dean of the Graduate School.

College/School: Penn State Harrisburg (as the Academic and Administrative Home of the IMPS-HLS Program)
Department or Instructional Area: School of Public Affairs

New Graduate Program, Option, or Minor: □ Add

Designation of new graduate program:
Classification of Instructional Programs (CIP) Code:
Designation of new graduate option:
Designation of new graduate minor:

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Existing Graduate Program Option, or Minor: □ Change □ Drop

Current designation of graduate program: Intercollege Master of Professional Studies in Homeland Security
Current designation of graduate option: Homeland Security Base Program
Current designation of graduate minor:

New designation of existing graduate program (if changing):
New designation of existing graduate option (if changing):
New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Change capstone course (594) from P ADM to HLS

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Submitted by Graduate Program Head
Alexander Siedschlag
Printed name
Signature
Date: 05/01/2015

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:
Janet Duck
Printed name
Signature
Date: 04/29/2015

Approved by College/School Dean/Chancellor (or Designee):
Peter Idowu
Printed name
Signature
Date: May 1, 2015
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<td>Luis Ayala</td>
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<td>Andris Freivalds</td>
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<td>Dean of the Graduate School</td>
<td>Regina Vasilatos-Younken</td>
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Proposal for Revising the
Intercollege Master of Professional Studies Program
in Homeland Security
(iMPS-HLS)

Alexander Siedschlag, Ph.D.
Program Chair

April 26, 2015
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C. Consultation 41
A. Justification


The Base Program in the Intercollege Master of Professional Studies in Homeland Security (iMPS-HLS) has so far used dedicated sections of the P ADM 594 course for its capstone. P ADM 594 however is the capstone course for the Master of Public Administration program. This approach had historical reasons and has led to increased confusion among students as well as administrative difficulty, as well as increased effort for World Campus in roll-out planning, course revision, student registration, and moving of students who registered for a wrong P ADM 594 section.

Therefore, starting in Fall 2015, the iMPS-HLS Base Program will be offering its own capstone course, HLS 594.

This proposal has the purpose of updating the iMPS-HLS University Bulletin to reflect this change in courses counting toward the program.

The only campus that teaches HLS 594 and P ADM 594 is Penn State Harrisburg, making consultation with other campuses unnecessary.
B.

Updated Bulletin Copy
(following approved Program Change Proposal of December 16, 2014)

From: VICKI L HEWITT [mailto:vlh16@psu.edu]
Sent: Thursday, April 23, 2015 11:25 AM
To: aus50@psu.edu; siedschlag@psu.edu
Cc: Robert Bannon; Tracey B. Noviello
Subject: Re: iMPS-HLS University Bulletin Update

Alexander,

The iMPS-HLS program change proposal will be published in the April 29th Graduate Council Curriculum Report. After a 30-day comment period following the publication of the report, the proposal is officially approved and the Faculty Senate Office will update the Bulletin.

[...]

I hope that is helpful.

Thanks,

Vicki

--
Vicki L. Hewitt, Ed.D.
Director of Graduate Education Administration
The Graduate School
Office of the Dean
209 Kern Graduate Building
The Pennsylvania State University
University Park, PA 16802
814-865-2518
vlh16@psu.edu)
Homeland Security

Program Home Page

ALEXANDER SIEDSCHLAG, Ph.D, Chair, Homeland Security Graduate Programs
Professor of Homeland Security and Public Health Preparedness
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Penn State Harrisburg
777 West Harrisburg Pike
Middletown, PA  17057
Phone: 717-948-4326; Fax: 717-948-6320
Email: aus50@psu.edu

Degree Conferred

M.P.S.

Graduate Faculty

Homeland Security (Base Program)
Thomas Arminio, M.A. (U.S. Naval War College) Instructor in Homeland Security
Kent Butts, Ph.D. (Washington) Senior Lecturer in Homeland Security
Alexander Siedschlag, Ph.D. (Munich) Chair and Professor of Homeland Security and Public Health Preparedness
Paul Thompson, J.D. (Georgetown) Senior Lecturer in Homeland Security and Public Affairs

Agricultural Biosecurity and Food Defense Option
Walter R. McVey, Jr., M.S. (West Virginia) Senior Project Manager in VBSC
Catherine Cutter, Ph.D. (Clemson) Associate Professor of Food Science
Gretchen Kuldau, Ph.D. (California) Associate Professor of Plant Pathology
Seogchan Kang, Ph.D. (Wisconsin) Professor of Plant Pathology

Geospatial Intelligence Option
Todd Bacastow, Ph.D. (Penn State) Professor of Practice for Geospatial Intelligence
Mark Corson, Ph.D. (South Carolina) Associate Professor of Geography
Peter Guth, Ph.D. (MIT) Visiting Professor of Geography
Gregory Thomas, Ph.D. (Indiana University of PA) Professor of Practice for Geospatial Intelligence

Information Security and Forensics Option
Guoray Cai, Ph.D. (Pittsburgh) Associate Professor of Information Sciences and Technology, Geography, and Computer Science and Engineering
Chao-Hsien Chu, Ph.D. (Penn State) Professor of Information Sciences and Technology, and Management Science
Public Health Preparedness Option

Vernon M. Chinchilli, Ph.D. (North Carolina) Distinguished Professor of Public Health Sciences
Eugene J. Lengerich, V.M.D., M.S. (Pennsylvania) Professor of Public Health Sciences
James F. McKenzie, Ph.D., MPH, MCHES (Ohio State) Professor of Public Health Sciences
Zhengmin Qian, M.D., Ph.D. (Rutgers) Assistant Professor of Public Health Sciences

Program Description

The intercollege Master of Professional Studies in Homeland Security (iMPS-HLS) degree program is designed to prepare professionals and develop leaders for the field of homeland security by providing exceptional graduate education that includes an integrated curriculum, expert faculty, and student interaction. The curriculum is delivered in a distance education format through the Penn State World Campus in order to accommodate the needs and careers of professionals who are already active in homeland security and public health, or those interested in transitioning into the field. The program is comprised of courses from several Penn State colleges and delivered via distance education through the Penn State World Campus to accommodate the needs and careers of professionals who are already active in homeland security and related fields of civil security, or those interested in transitioning into the field. The program provides select graduate students with an integrated, cross-disciplinary curriculum that is focused on a set of unified educational goals to help them understand and manage the complexities of homeland security in a global environment. Within the degree program and in addition to its common core curriculum, students choose the base program or one of four options: public health preparedness; geospatial intelligence; and agricultural biosecurity and food defense. The participating academic units for this collaborative program are: Penn State Harrisburg; the College of Medicine (in collaboration with the Milton S. Hershey Medical Center); the College
of the Liberal Arts; the College of Earth and Mineral Sciences; and the College of Agricultural Sciences.

General Admission Requirements

Educational Background

An applicant must hold either (1) a baccalaureate degree from a regionally accredited U.S. institution or (2) a tertiary (postsecondary) degree that is deemed comparable to a four-year bachelor's degree from a regionally accredited U.S. institution. This degree must be from an officially recognized degree-granting institution in the country in which it operates.

Core Application Packet

- Completed online Graduate School application and payment of nonrefundable application fee
- Statement of purpose
- Vita or résumé
- Three letters of recommendation
- Two official transcripts from each institution attended
- Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) score, if applicable

Statement of Purpose and Curriculum Vitae

A statement of professional experience and goals (up to 500 words) and the candidate’s vita or résumé must accompany the application.

Letters of Recommendation

- The individuals writing letters should be familiar with you and comfortable discussing your professional and/or academic strengths and accomplishments.
- The Admissions Committee prefers that all letters be written within the last six months and reference the applicant’s current career goals and/or ability to perform graduate level study.
- A person choosing to submit a letter of reference will do this through the online application process and either select our pre-formatted template or upload his/her own letter.

GPA Requirements

Your grade-point average is interpreted by the Admissions Committee in the context of a completed application. Some options may require a minimum GPA.

GRE Requirements
The Graduate Record Examination may be required by some options.

**TOEFL**

The language of instruction at Penn State is English. International applicants must take and submit scores for the TOEFL (Test of English as a Foreign Language) or the IELTS (International English Language Testing System), with the exceptions noted below. The minimum acceptable score for the TOEFL is 550 for the paper-based test or a total score of 80 with a 19 on the speaking section for the internet-based test. Applicants with iBT speaking scores between 15 and 18 may be considered for provisional admission, which requires an institutional test of English proficiency upon first enrollment and, if necessary, remedial course work. The minimum composite score for the IELTS is 6.5.

International applicants are exempt from the TOEFL/IELTS requirement who have received a baccalaureate or a graduate degree from a college/university/institution in any of the following: Australia, Belize, British Caribbean and British West Indies, Canada (except Quebec), England, Guyana, Republic of Ireland, Liberia, New Zealand, Northern Ireland, Scotland, the United States, and Wales.

**Other Considerations**

Special backgrounds, abilities, and interests related to homeland security are desirable.

**Financial Aid**

World Campus students who are enrolled in a degree program and meet all other federal student aid eligibility requirements may be eligible for federal aid programs. Students must complete the Free Application for Federal Student Aid (FAFSA) to be considered for student aid.

**Degree Requirements**

The Master of Professional Studies in Homeland Security program requires a minimum of 33 credits, 24 of which must be earned at Penn State. Up to 10 graduate credits may be transferred in from a regionally accredited institution (as is permissible by Graduate Council policy); if the full 10 credits are transferred, the minimum total number of credits in the degree program will be 34. At least 18 credits must be courses at the 500 level and above, of which 6 credits must be in 500-level courses. Students are expected to maintain a B (3.0) or better average in academic courses to be retained in the program. Graduate Council policy requires that student must have a GPA of 3.0 or above in order to graduate from the program. Each student will take a 9 credit core curriculum consisting of HLS/PDM 801, HLS/PHIL 803, and HLS/PL SC 805, as well as of a non-credit Orientation Course. Students will also take 12 credits of prescribed courses for the specialized option. There are 9 elective credits that are chosen from an approved list in consultation with the student’s academic adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. Finally, each degree candidate must
complete a capstone project on a topic related to homeland security and defense (HLS/AGBIO/GEOG/IST/PHP 594 - Research Topics).

**Prescribed Courses**

Homeland security refers to the unifying core for the vast global network of organizations and institutions that are involved in the efforts to secure society. Regardless of field of specialization, or chosen discipline for graduate study, all professionals in the program will participate in a Unifying Core Curriculum with the following educational goals and objectives:

- Understand major policies and legislation that shapes homeland security in a globalized society.
- Become familiar with organizations that play a key role in the implementation of homeland security policies and administration, and recognize the interactions among them.
- Understand the way in which a person or group responds to a set of conditions so as to prevent and respond to incidents and catastrophic events when needed.
- Recognize the impact that catastrophic events, both natural and man-made, have on society and the domestic and global economy.
- Identify and assess potential threats, vulnerabilities, and consequences.
- Apply leadership skills and principles that are necessary for producing and acting on information of value within a collaborative setting.
- Communicate effectively in the context of particular institutional cultures.
- Use, conduct, and interpret research and data effectively in decision-making.
- Practice ethics and integrity as a foundation for analytical debate and conclusion.
- Develop an appreciation of the cultural, social, psychological, political, and legal aspects of terrorism and counterterrorism.

The Core Curriculum consists of the following four courses:

**HLS ORIENTATION:** Orientation course (non-credit) Overview of program expectations, parts, academic specialization areas, and mechanics; as well as an essential overview of the field of homeland security and its community of practice. The Options may add content to aspects of homeland security that are specific to their academic specialization area.

**HLS/P ADM 801:** Homeland Security Administration: Policies and Programs (3) Foundation for understanding homeland security history, the development of homeland security policies and organizations, and current management approaches.

**HLS/PHIL 803:** Homeland Security: Social and Ethical Issues (3) This course examines the social, political, legal, and ethical issues that arise in the context of homeland security.

**HLS/PL SC 805:** Violence, Threats, Terror, and Insurgency (3) Provides an overview of the domestic and global issues related to homeland security.

Listed below are the courses required/suggested for the Base Program and for the Options:
Homeland Security (Base Program)

Director: Dr. Alexander Siedschlag, Ph.D. (Univ Munich, Germany) Professor of Homeland Security and Public Health Preparedness, School of Public Affairs; Program Chair, iMPS-Homeland Security, W160 Olmsted Building, Penn State Harrisburg; 717-948-4326; aus50@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
P ADM 401: Foundations of Homeland Security (3)
P ADM 404: Homeland Security and Defense in Practice (3)
P ADM 802: Collaboration and Integration: Multifaceted Approaches to Homeland Security (3)
P ADM 803: Strategic Planning and Organizational Imperatives in Homeland Security and Defense (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Base Program Director and is provided to the students in the base program.

Capstone Experience
P ADM 594: Research Topics (3)

Agricultural Biosecurity and Food Defense Option

Director: Gretchen Kuldau, Ph.D. (California) Associate Professor of Plant Pathology
0205 Buckout Laboratory, University Park; 814 863 7232; kuldaupsu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
AGBIO 520: Agricultural Biosecurity: Protecting a Key Infrastructure (3)
AGBIO 521: Food Defense: Prevention Planning For Food Processors (3)
AGBIO 801: Veterinary Infectious Disease Diagnostic and Surveillance Systems (3)
AGBIO 802: Plant Protection: Responding to Introductions of Threatening Pest and Pathogens (3)
Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
AGBIO 594: Agricultural Biosecurity and Food Defense - Capstone Experience (3)

Geospatial Intelligence Option
Director: Gregory Thomas, Ph.D. (Indiana University of PA), Professor of Practice for Geospatial Intelligence, 2217 Earth and Engineering Sciences Building, University Park; (814) 867-1471; gat5@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
GEOG 882: Geographic Foundations of Geospatial Intelligence (3)
GEOG 483: Problem Solving with GIS (3)
GEOG 480: Exploring Imagery and Elevation Data in GIS Applications (3)
GEOG 885: Advanced Analytic Methods for Geospatial Intelligence (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
GEOG 594A: Research Topics: Analytic Experience in Geospatial Intelligence (1)
GEOG 594B: Research Topics: Geospatial Intelligence Capstone Experience (2)

Information Security and Forensics Option
Director: Peter Forster, Ph.D. (Penn State) Senior Lecturer of Information Sciences and Technology, and Management Science and Associate Dean
332P Information Sciences and Technology Building, University Park; 814-863-8304; pkfl@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS 801/P ADM: Homeland Security Administration: Policies and Programs (3)
HLS 803/PHIL: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)
Prescribed Courses
IST 454: Computer and Cyber Forensics (3)
IST 456: Information Security Management (3)
IST 815: Information Security and Assurance (3)
IST 554: Network Management and Security (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
IST 594: Research Topics (3)

Public Health Preparedness Option
Director: Eugene J. Lengerich, V.M.D., M.S., Professor, Public Health Sciences, Penn State College of Medicine, MC H070; 500 University Drive; Hershey, Pennsylvania; 717-531-6066; PHP_Programs@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
PHP 410: Public Health Preparedness for Disaster and Bioterrorism Emergencies I (3)
PHP 510: Public Health Preparedness for Disaster and Bioterrorism Emergencies II (3)
PHP 527: Public Health Evaluation of Disasters and Bioterrorism (3)
PHP 530: Critical Infrastructure Protection of Health Care Delivery Systems (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
PHP 594: Research Topics (3)

Faculty updated: 12/16/14
Homeland Security

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Degree Conferred
M.P.S.

Graduate Faculty

Program Description

The intercollege Master of Professional Studies in Homeland Security (iMPS-HLS) degree program is designed to prepare professionals and develop leaders for the field of homeland security by providing exceptional graduate education that includes an integrated curriculum, expert faculty, and student interaction. The program is comprised of courses from several Penn State colleges and delivered via distance education through the Penn State World Campus to accommodate the needs and careers of professionals who are already active in homeland security and related fields of civil security, or those interested in transitioning into the field. The program provides select graduate students with an integrated, cross-disciplinary curriculum that is focused on a set of unified educational goals to help them understand and manage the complexities of homeland security in a global environment. Within the degree program and in addition to its common core curriculum, students choose the base program or one of four options: agricultural biosecurity and food defense; geospatial intelligence; public health preparedness; and information security and forensics. The participating academic units for this collaborative program are: Penn State Harrisburg; the College of Medicine (in collaboration with the Milton S. Hershey Medical Center); the College of the Liberal Arts; the College of Earth and Mineral Sciences; and the College of Agricultural Sciences.

General Admission Requirements
Admission requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Core Application Packet

- Completed online Graduate School application and payment of nonrefundable application fee
- Statement of purpose
- Vita or résumé
- Three letters of recommendation
- official transcripts from all post-secondary institutions attended

Statement of Purpose and Curriculum Vitae

A statement of professional experience and goals (up to 500 words) and the candidate’s vita or résumé must accompany the application.

Letters of Recommendation

- The individuals writing letters should be familiar with you and comfortable discussing your professional and/or academic strengths and accomplishments.
- The Admissions Committee prefers that all letters be written within the last six months and reference the applicant’s current career goals and/or ability to perform graduate level study.
- A person choosing to submit a letter of reference will do this through the online application process and either select our pre-formatted template or upload his/her own letter.

GPA Requirements

Your grade-point average is interpreted by the Admissions Committee in the context of a completed application. Some options may require a minimum GPA.

GRE Requirements

The Graduate Record Examination may be required by some options.

Other Considerations

Special backgrounds, abilities, and interests related to homeland security are desirable.

Degree Requirements

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.
The Master of Professional Studies in Homeland Security program requires a minimum of 33 credits, 24 of which must be earned at Penn State. Up to 10 graduate credits may be transferred in from a regionally accredited institution (as is permissible by Graduate Council policy); if the full 10 credits are transferred, the minimum total number of credits in the degree program will be 34. At least 18 credits must be courses at the 500 or 800 level, of which 6 credits must be in 500-level courses. Students are expected to maintain a B (3.0) or better average in academic courses to be retained in the program. Graduate Council policy requires that student must have a GPA of 3.0 or above in order to graduate from the program. Each student will take a 9 credit core curriculum consisting of HLS/PDM 801, HLS/PHIL 803, and HLS/PL SC 805, as well as of a non-credit Orientation Course. Students will also take 12 credits of prescribed courses for the specialized option. There are 9 elective credits that are chosen from an approved list in consultation with the student’s academic adviser. The list of electives is maintained by the Option Director and is provided to the students in the option. Finally, each degree candidate must complete a capstone project on a topic related to homeland security and defense, in association with HLS/AGBIO/GEOG/IST/PHP 594 - Research Topics.

**Prescribed Courses**

Homeland security refers to the unifying core for the vast global network of organizations and institutions that are involved in the efforts to secure society. Regardless of field of specialization, or chosen discipline for graduate study, all professionals in the program will participate in a Unifying Core Curriculum with the following educational goals and objectives:

- Understand major policies and legislation that shapes homeland security in a globalized society.
- Become familiar with organizations that play a key role in the implementation of homeland security policies and administration, and recognize the interactions among them.
- Understand the way in which a person or group responds to a set of conditions so as to prevent and respond to incidents and catastrophic events when needed.
- Recognize the impact that catastrophic events, both natural and man-made, have on society and the domestic and global economy.
- Identify and assess potential threats, vulnerabilities, and consequences.
- Apply leadership skills and principles that are necessary for producing and acting on information of value within a collaborative setting.
- Communicate effectively in the context of particular institutional cultures.
- Use, conduct, and interpret research and data effectively in decision-making.
- Practice ethics and integrity as a foundation for analytical debate and conclusion.
- Develop an appreciation of the cultural, social, psychological, political, and legal aspects of terrorism and counterterrorism.

The Core Curriculum consists of the following four courses:

**HLS ORIENTATION:** Orientation course (non-credit) Overview of program expectations, parts, academic specialization areas, and mechanics; as well as an essential overview of the field
of homeland security and its community of practice. The Options may add content to aspects of homeland security that are specific to their academic specialization area.

**HLS/P ADM 801**: Homeland Security Administration: Policies and Programs (3) Foundation for understanding homeland security history, the development of homeland security policies and organizations, and current management approaches.

**HLS/PHIL 803**: Homeland Security: Social and Ethical Issues (3) This course examines the social, political, legal, and ethical issues that arise in the context of homeland security.

**HLS/PL SC 805**: Violence, Threats, Terror, and Insurgency (3) Provides an overview of the domestic and global issues related to homeland security.

Listed below are the courses required/suggested for the Base Program and for the Options:

**Homeland Security (Base Program)**

Director: Dr. Alexander Siedschlag, Ph.D. (Univ Munich, Germany) Professor of Homeland Security and Public Health Preparedness, School of Public Affairs; Program Chair, iMPS-Homeland Security, W160 Olmsted Building, Penn State Harrisburg; 717-948-4326; aus50@psu.edu

**Core Curriculum**
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

**Prescribed Courses**
P ADM 401: Foundations of Homeland Security (3)
P ADM 404: Homeland Security and Defense in Practice (3)
P ADM 802: Collaboration and Integration: Multifaceted Approaches to Homeland Security (3)
P ADM 803: Strategic Planning and Organizational Imperatives in Homeland Security and Defense (3)

**Electives**
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Base Program Director and is provided to the students in the base program.

**Capstone Experience**
HLS 594: Research Topics (3)

**Agricultural Biosecurity and Food Defense Option**

Director: Gretchen Kuldau, Ph.D. (California) Associate Professor of Plant Pathology
0205 Buckout Laboratory, University Park; 814 863 7232; kuldau@psu.edu
Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
AGBIO 520: Agricultural Biosecurity: Protecting a Key Infrastructure (3)
AGBIO 521: Food Defense: Prevention Planning For Food Processors (3)
AGBIO 801: Veterinary Infectious Disease Diagnostic and Surveillance Systems (3)
AGBIO 802: Plant Protection: Responding to Introductions of Threatening Pest and Pathogens (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
AGBIO 594: Agricultural Biosecurity and Food Defense - Capstone Experience (3)

Geospatial Intelligence Option
Director: Gregory Thomas, Ph.D. (Indiana University of PA), Professor of Practice for Geospatial Intelligence, 2217 Earth and Engineering Sciences Building, University Park; (814) 867-1471; gat5@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
GEOG 882: Geographic Foundations of Geospatial Intelligence (3)
GEOG 483: Problem Solving with GIS (3)
GEOG 480: Exploring Imagery and Elevation Data in GIS Applications (3)
GEOG 885: Advanced Analytic Methods for Geospatial Intelligence (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
GEOG 594A: Research Topics: Analytic Experience in Geospatial Intelligence (1)
GEOG 594B: Research Topics: Geospatial Intelligence Capstone Experience (2)
Information Security and Forensics Option

Director: Peter Forster, Ph.D. (Penn State) Senior Lecturer of Information Sciences and Technology, and Management Science and Associate Dean
332P Information Sciences and Technology Building, University Park; 814-863-8304; pkf1@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS 801/P ADM: Homeland Security Administration: Policies and Programs (3)
HLS 803/PHIL: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
IST 454: Computer and Cyber Forensics (3)
IST 456: Information Security Management (3)
IST 815: Information Security and Assurance (3)
IST 554: Network Management and Security (3)

Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
IST 594: Research Topics (3)

Public Health Preparedness Option

Director: Eugene J. Lengerich, V.M.D., M.S., Professor, Public Health Sciences, Penn State College of Medicine, MC H070; 500 University Drive; Hershey, Pennsylvania; 717-531-6066; PHP_Programs@psu.edu

Core Curriculum
HLS ORIENTATION: Orientation course (non-credit)
HLS/P ADM 801: Homeland Security Administration: Policies and Programs (3)
HLS/PHIL 803: Homeland Security: Social and Ethical Issues (3)
HLS/PL SC 805: Violence, Threats, Terror, and Insurgency (3)

Prescribed Courses
PHP 410: Public Health Preparedness for Disaster and Bioterrorism Emergencies I (3)
PHP 510: Public Health Preparedness for Disaster and Bioterrorism Emergencies II (3)
PHP 527: Public Health Evaluation of Disasters and Bioterrorism (3)
PHP 530: Critical Infrastructure Protection of Health Care Delivery Systems (3)
Electives
Choose 9 credits from an approved elective list in consultation with adviser. The list of electives is maintained by the Option Director and is provided to the students in the option.

Capstone Experience
PHP 594: Research Topics (3)

Financial Aid

World Campus students who are enrolled in a degree program and meet all other federal student aid eligibility requirements may be eligible for federal aid programs. Students must complete the Free Application for Federal Student Aid (FAFSA) to be considered for student aid.
C. Consultation

Steven Peterson, Ph.D., Director, School of Public Affairs

Jeremy Plant, Ph.D., Program Coordinator, Master of Public Administration

From: STEVEN AMES PETERSON [mailto:sap12@psu.edu]
Sent: Friday, April 24, 2015 10:50 AM
To: JEREMY PLANT
Cc: ALEXANDER SIEDSCHLAG
Subject: Re: iMPS-HLS University Bulletin Update

I, too, am supportive. There is sometimes confusion because of the use of PADM 594. I believe that this change makes a great deal of sense and, like Jeremy Plant, heartily endorse it.

Steve

Steven A. Peterson
Director, School of Public Affairs
Penn State Harrisburg
777 W. Harrisburg Pike
Middletown, PA 17057

Phone: 717-948-6154
E-mail: sap12@psu.edu

From: "JEREMY PLANT" <jfp2@psu.edu>
To: "ALEXANDER SIEDSCHLAG" <aus50@psu.edu>
Cc: "STEVEN AMES PETERSON" <sap12@psu.edu>
Sent: Friday, April 24, 2015 10:45:59 AM
Subject: Re: iMPS-HLS University Bulletin Update

Alexander,
I support changing the prefix for the HLS capstone course from PADM to HLS 594. This will avoid confusion with the MPA program's capstone and identify the proper course for HLS students to take.

Let me know if you need further documentation.

Jeremy Plant

MPA Coordinator

Professor of Public Policy and Administration

From: "ALEXANDER SIEDSCHLAG" <aus50@psu.edu>
To: "STEVEN AMES PETERSON" <sap12@psu.edu>, jfp2@psu.edu
Sent: Friday, April 24, 2015 10:37:34 AM
Subject: FW: iMPS-HLS University Bulletin Update

Steve and Jeremy,

It turns out I need to do a separate iMPS-HLS Program Change proposal in order to change the prefix for our capstone from PADM to HLS 594, as previously discussed.

Could you send me a brief note confirming this discussion and that you are still in agreement?

Thank you.

Best regards,

Alexander

From: VICKI L HEWITT [mailto:vlh16@psu.edu]
Sent: Friday, April 24, 2015 9:16 AM
To: ALEXANDER SIEDSCHLAG
Cc: siedschlag@psu.edu; Robert Bannon; Tracey B. Noviello
Subject: Re: iMPS-HLS University Bulleting Update
Alexander,

Since your proposal has already been approved by the Joint Curricular Committee, we can't make any changes to it at this point. I would advise you to submit a program change proposal after the course is approved to change the prefix of the capstone course. Since this is a relatively straightforward change, the proposal can be brief. It only needs to include:

1) a justification statement - why you are requesting the change.

2) the proposed revision, including a copy of the existing Bulletin page for the program, and a copy of the Bulletin with the changes you are proposing marked using track changes.

3) a consultation letter from the program head of the other department affected - Public Administration.

Please see Graduate Council's website for more information about submitting the program change proposal:

Overview of the Graduate Council Curricular Review Process:  
http://www.gradschool.psu.edu/gradcouncil/overview-of-the-graduate-council-curricular-review-process/

Graduate Program Proposal Procedures: http://www.gradschool.psu.edu/faculty-and-staff/faculty/progprop/

If you have any further questions, feel free to contact me.

Thanks,

Vicki

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Vicki L. Hewitt, Ed.D.
Director of Graduate Education Administration
The Graduate School
Office of the Dean
209 Kern Graduate Building
The Pennsylvania State University
University Park, PA 16802
814-865-2518
vlh16@psu.edu
Graduate Council
Program, Option, or Minor Proposal Form

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College/School: Nursing
Department or Instructional Area:

New Graduate Program, Option, or Minor: □ Add
Designation of new graduate program:
   Classification of Instructional Programs (CIP) Code:
Designation of new graduate option:
Designation of new graduate minor:

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Existing Graduate Program Option, or Minor: ✓ Change □ Drop
Current designation of graduate program:
Current designation of graduate option:
Current designation of graduate minor:

New designation of existing graduate program (if changing):
New designation of existing graduate option (if changing):
New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Change in course numbers for required courses (500 level to 800 level)

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Submitted by Graduate Program Head
Judith Hupey
Printed name
Signature
Date: 12/14/15

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:
Susan Loeb
Printed name
Signature
Date: 01-08-16

Approved by College/School Dean/Chancellor (or Designee):
Paula Milone-Nuzzo
Printed name
Signature
Date: 1/18/16
<table>
<thead>
<tr>
<th>Role</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended by Chair, Graduate Council Subcommittee on New and Revised Programs and Courses:</strong></td>
<td></td>
<td>3/19/2016</td>
</tr>
<tr>
<td>On Behalf of Luis Ayala</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Behalf of Andris Freivalds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noted by Dean of the Graduate School:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Behalf of Regina Vasilatos-Younken</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Printed name** | **Signature** | **Date**  
--- | --- | ---  
**Valerie Kniff** | **Valerie Kniff** | **3/19/2016**  
**Valerie Kniff** | **Valerie Kniff** | **3/19/2016**  
**Valerie Kniff** | **Valerie Kniff** | **3/19/2016**
College of Nursing
Graduate Program in Nursing
Program Revision: MSN: NP & Nurse Educator Options

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<td>b. Revised Version of the Affected Areas</td>
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<tr>
<td>c. Departments Affected</td>
<td>1</td>
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<tr>
<td>MSN Options Table</td>
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</table>
a. Justification for Proposed Changes
This proposal addresses changes in course numbers for the required courses for the Family Nurse Practitioner option (NURS 502; NURS 502A; NURS 503; NURS 504), Adult Gerontology Primary Care Nurse and Adult Gerontology Acute Care Nurse Practitioner options (NURS 502; NURS 503; NURS 504) and the Nurse Educator option (NURS 503; NURS 504 and NURS 802).

The College of Nursing changed the degree granted for all advanced practice role options from the MS to the MSN in 2013 in order to better reflect the focus of the degree. All advanced practice option specific courses in the professional Master’s degree have been approved to now be 800-level rather than 500-level courses. The 12 credits of Masters Core Requirements remain at the 500-level.

b. Revised version of the affected area showing both the old program requirements and the new program requirements
The Family Nurse Practitioner option required advanced practice nursing courses are as follows:
- NURS 502 802: Advanced Health Assessment of Adult Populations (3 credits)
- NURS 502A 802A: Advanced Health Assessment of Pediatric Populations (1 credit)
- NURS 503 803: Advanced Pathophysiology (3 credits)
- NURS 504 804: Pharmacology Therapy in the Primary Care Setting (3 credits)

The Adult Gerontology Primary Care Nurse and Adult Gerontology Acute Care Nurse Practitioner options required advanced practice nursing are as follows:
- NURS 502 802: Advanced Health Assessment of Adult Populations (3 credits)
- NURS 503 803: Advanced Pathophysiology (3 credits)
- NURS 504 804: Pharmacology Therapy in the Primary Care Setting (3 credits)

The Nurse Educator option required advanced practice nursing are as follows:
- NURS 802 802B: Physical Assessment Through the Life Span (3 credits)
- NURS 503 803: Advanced Pathophysiology (3 credits)
- NURS 504 804: Pharmacology Therapy in the Primary Care Setting (3 credits)

The M.S.N. Degree Program curriculum is presented in the Table on the following page.

c. Departments Affected
None.

Graduate Bulletin Changes
None
M.S.N. Degree Program/Options

<table>
<thead>
<tr>
<th>Base Program Min 30 credits</th>
<th>Nurse Administrator Option (37 credits)</th>
<th>Nurse Educator Option (37 credits)</th>
<th>CNS Option (41-42 Credits)</th>
<th>Family NP (FNP) Option (45 credits)</th>
<th>Adult Gerontology Primary Care NP (AGNP) Option (41 credits)</th>
<th>Adult/Gerontology Acute Care NP (ACNP) Option (43 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's Degree Programs Core Requirements (12 credits)</td>
<td>NURS 501: Issues in Nursing and Health Care (3 credits)</td>
<td>NURS 510: Theoretical Foundation of Nursing (3 credits)</td>
<td>NURS 512: Nursing Research (3 credits)</td>
<td>NURS 513: M.S.N. Capstone (3 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses Common to Nurse Educator, CNS, &amp; NPs Options (9 credits)</td>
<td>NP and CNS: NURS 802: Advanced Health Assessment of Adult Populations (3 credits)</td>
<td>NURS 802B: Physical Assessment Through the Life Span (3 credits)</td>
<td>NURS 803: Advanced Pathophysiology (3 credits)</td>
<td>NURS 804: Pharmacologic Therapy (3 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses Specific to the NP and AGNP Options (6 credits)</td>
<td>NURS 870: Nurse Practitioner Role with Healthy Individuals &amp; Families (3 credits)</td>
<td>NURS 871: Nurse Practitioner Role with Individuals and Families with Complex and/or Chronic Health Problems (3 credits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option Specific Courses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Administrator Option Courses (13 credits)</td>
<td>Nurse Educator Option Courses (13 credits)</td>
<td>CNS Option Courses (16 credits)</td>
<td>FNP Option Courses (18 credits)</td>
<td>AGNP Option Courses (14 credits)</td>
<td>ACNP Option Courses (22 credits)</td>
<td></td>
</tr>
<tr>
<td>NURS 845: Healthcare Economics and Policy for Nurse Administrators (3 credits)</td>
<td>NURS 840: Nursing Education Theories and Strategies (3 credits)</td>
<td>NURS 818: Clinical Nurse Specialist I: Concepts and Theory (4 credits)</td>
<td>NURS 802A: Advanced Health Assessment of Pediatric Populations (1 credit)</td>
<td>NURS 872A: Adult Gerontology Nurse Practitioner Practicum I (4 credits)</td>
<td>NURS 860: Adult Gerontology Acute Care Nurse Practitioner Role I (3 credits)</td>
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</tr>
<tr>
<td>NURS 846: Leadership Concepts and Theories for Nurse Administrators (3 credits)</td>
<td>NURS 841: Assessment and Evaluation in Nursing Education (3 credits)</td>
<td>NURS 819: Clinical Nurse Specialist II: Analysis &amp; Application (4 credits)</td>
<td>NURS 872: Family Nurse Practitioner Practicum I (3 credits)</td>
<td>NURS 873A: Adult Gerontology Nurse Practitioner Practicum II (4 credits)</td>
<td>NURS 861: Adult Gerontology Acute Care Nurse Practitioner Role II (3 credits)</td>
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</tr>
<tr>
<td>NURS 847: Human Resource and Workforce Issues for Nurse Administrators (3 credits)</td>
<td>NURS 842: Curriculum and Program Development in Nursing Education (3 credits)</td>
<td>NURS 821: Advanced Nursing Practicum (8 credits)</td>
<td>NURS 873: Family Nurse Practitioner Practicum II (4 credits)</td>
<td>NURS 874A: Adult Gerontology Nurse Practitioner Integrative Practicum (6 credits)</td>
<td>NURS 862: Adult Gerontology Acute Care Nurse Practitioner Practicum II (4 credits)</td>
<td></td>
</tr>
<tr>
<td>NURS 848: Synthesis and Application of the Nurse Administrator Role (4 credits)</td>
<td>NURS 843: Analysis and Application of the Nurse Educator Role (4 credits)</td>
<td>Additional Courses Adult Gerontology Concentration (4-5 credits)</td>
<td>NURS 874: Family Nurse Practitioner Integrative Practicum (6 credits)</td>
<td>NURS 863: Adult Gerontology Acute Care Nurse Practitioner Integrative Practicum (6 credits)</td>
<td>NURS 864: Adult Gerontology Acute Care Nurse Practitioner Integrative Practicum (6 credits)</td>
<td></td>
</tr>
<tr>
<td>Electives: 12 credits</td>
<td>Elective: 3 credits</td>
<td>Elective: 3 credits</td>
<td>NURS 875: Nurse Practitioner Role with Children and Families (2 credits)</td>
<td>NURS 876: Nurse Practitioner Practicum in Child Health (2 credits)</td>
<td>NURS 885: Pharmacology for Acute Care Nurse Practitioners (1 credit)</td>
<td></td>
</tr>
<tr>
<td>NURS 823: Intervention for Common Health Problems in the Adult/Older Adult (4 credits)</td>
<td>NURS 824: Interventions for Common Health Problems in the Adult/Older Adult (4 credits)</td>
<td>NURS 602: (1 credit)</td>
<td>NURS 825: Nurse Practitioner Practicum in Child Health (2 credits)</td>
<td>NURS 886: Health Assessment of Adult Gerontology Populations in Acute Care (1 credit)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- All courses 3 credits, except NURS 802A (1 credit) and NURS 823 (4 credits).
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College/School: Health and Human Development
Department or Instructional Area: Department of Nutritional Sciences

New Graduate Program, Option, or Minor: □ Add

Designation of new graduate program:
Classification of Instructional Programs (CIP) Code:
Designation of new graduate option:
Designation of new graduate minor:

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Existing Graduate Program Option, or Minor: □ Change □ Drop

Current designation of graduate program: Nutritional Sciences
Current designation of graduate option:
Current designation of graduate minor:

New designation of existing graduate program (if changing):
New designation of existing graduate option (if changing):
New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Adding a Master of Professional Studies in Nutritional Sciences Degree

Indicate effective semester:
□ First semester following approval
□ Second semester following approval

Submitted by Graduate Program Head

Rebecca Corwin
Printed name
Signature
Date: 9/SEP/15

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:

JOHN H. CHALLIS
Printed name
Signature
Date: 10/SEP/15

Approved by College/School Dean/Chancellor (or Designee):

KATHRYN DRAGER
Printed name
Signature
Date: 10-15-15
Recommended by Chair, Graduate Council Subcommittee on New and Revised Programs and Courses:

On Behalf of Luis Ayala
Printed name
Signature
Date: 3/1/2016

Recommended by Chair, Graduate Council Committee on Programs and Courses:

On Behalf of Andris Freivalds
Printed name
Signature
Date: 3/1/2016

Noted by Dean of the Graduate School:

On Behalf of Regina Vasilatos-Younken
Printed name
Signature
Date: 3/1/2016
Proposal for Master of Professional Studies in Nutritional Sciences Degree (Online) Program

1. New program

   a. Justification for the program

   *Necessity for the program* – This program is needed, in part, because of a mandate from the Commission on Dietetic Registration (CDR), the agency that issues the Registered Dietitian Nutritionist (RDN) credential, which will require a master’s degree for entry-level practitioners in the profession of nutrition and dietetics by 2024. Moreover, a growing number of students and practicing Registered Dietitians/Nutritionists (RDNs) are interested in earning a graduate degree to position them for career success. Consequently, there is a need for high quality master's degree programs in nutrition.

   *Information on the ability of the Department to offer a quality program* - In 2010, the National Research Council ranked the Penn State Graduate Program in Nutritional Sciences in the very top tier compared to peer institutions. Our graduates who are pursuing a Dietetic Internship are admitted to programs at a rate that consistently exceeds the national average. Our advanced degree students are highly sought after for positions in academia, the government, private sector, and professional societies/organizations.

   We are planning for an initial class of approximately 30 students, which we will grow to up to 90 students by the end of the first year. In the second year of the program, we plan to enroll up to 30 additional students each semester, as will be done in the first year of the program. Our goal is for enrolled students to complete the degree program within two years. The program will be operated as a non-cohort model (i.e., rolling enrollment) to facilitate program entry at the beginning of any semester. The available openings for rolling enrollment will be determined by our teaching capacity and the applicant pool. We plan to grow our instructor pool to match our needs. Selected courses will be offered every semester while others may be offered once or twice each academic year.

   Most of the courses offered are new so the proposed program will have little impact on current course offerings. Faculty teaching loads will remain...
constant at two courses per semester for tenure-track faculty and three courses per semester for fixed-term faculty since they can choose to teach existing courses in residence and/or elect to teach online courses as part of their teaching load. As noted, we anticipate recruiting additional faculty as the program grows and we also will incentivize online teaching by offering faculty a salary supplement to teach online courses beyond their required course load.

Advising in this program will be done by new faculty members who will direct and manage the program, teach, and advise students/potential students. A Registered Dietitian/Nutritionist (RDN) with a master’s degree will be one of the faculty members hired to meet the needs of the program. A faculty member with a Ph.D. and an RDN will be the Program Director. Other faculty members will have the requisite understanding of the educational needs of entry-level practitioners, which will be important for advising students and overseeing the program.

The College of Health and Human Development is committed to providing resources and support for the new program. The College’s Outreach Office will serve as a liaison unit between the department and the World Campus and will provide the following support: administrative planning and oversight, financial management, and instructional design resources and ongoing technical support for all courses and faculty who develop and teach them.

b. Objectives of the program

The program proposed will teach leadership skills in the profession of nutrition and dietetics. In addition, students will learn how to translate research to best practices in various nutrition practice settings including clinical, research, community, and management. There will be an emphasis on teaching how to evaluate high-quality research to build an evidence base for practice decisions. Students in the program may expect to become leaders on the health care team and other practice teams, and share their knowledge and expertise with other health care professionals and colleagues. Graduates will be positioned for career success and will be innovators in today’s dynamic health and wellness sector.

The new online program will not duplicate the existing graduate programs in the Department. The curriculum is comprised of new courses created
specifically for the online program to achieve the program objectives of training students to excel in different professional settings. The Penn State program will be unique among peer institutions because graduates will acquire leadership skills, know how to evaluate the scientific evidence base, and be able to translate research findings to practice in different professional settings. Importantly, students will have access to internationally recognized faculty in the Department.

c. List of new courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 505 Advanced Nutrient Metabolism</td>
<td>4</td>
</tr>
<tr>
<td>NUTR 540 Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 801 Leadership in the Nutrition Profession</td>
<td>1</td>
</tr>
<tr>
<td>NUTR 810 Nutritional Assessment and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 820 Advanced Clinical Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 830 Advanced Community Nutrition and Education</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 840 Advanced Nutrition Counseling</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 850 Leadership Concepts and Application for the Nutrition Profession</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 560 Capstone Project in Nutritional Sciences</td>
<td>2-5</td>
</tr>
</tbody>
</table>
d. Complete program statement

Program Summary

The program will train future nutrition leaders to be well positioned to excel in diverse practice settings. The course of study focuses on evaluating cutting-edge research, translating research to best practices in different practice settings, and educating other health care professionals about implementation of new nutrition guidelines and recommendations that are evidence-based. With the growing demand for leaders in nutrition who are facile in problem solving and finding solutions that facilitate implementation of best nutrition practices, this program will provide the requisite skills for career success. The program culminates in a Capstone Project in which students gain experience in identifying evidence-based solutions to improve nutrition practice. Graduates will be prepared for employment in many nutrition practice settings, including: hospitals, clinics and outpatient care centers, medical group practices, federal, state and public health agencies, the food industry, and as a nutrition consultant.

Required courses recommended to be taken in Year 1

- NUTR 505 Advanced Nutrient Metabolism (4 cr)
- NUTR 801 Leadership in the Nutrition Profession (1 cr)
- NUTR 810 Advanced Nutritional Assessment and Diagnosis (3 cr)
- NUTR 820 Advanced Clinical Nutrition (3 cr)
- NUTR 830 Advanced Community Nutrition and Education (3 cr)
- NUTR 840 Advanced Nutrition Counseling (3 cr)

Required courses recommended to be taken in Year 2

- NUTR 540 Research Methods (3 cr)
- NUTR 560 Capstone Project in Nutritional Sciences (2-5 cr)
- NUTR 850 Leadership Concepts and Application for the Nutrition Profession (3 cr)
- STAT 500 Applied Statistics (3 cr)

ELECTIVES

- NUTR 520 Readings in Nutrition (1 cr/semester, 2 cr maximum)
- NUTR 602 Supervised Experience in College Teaching (1-3 cr/semester, 6 cr maximum)

World Campus Course offerings in consultation with adviser
Suggested Course Schedule

An example course schedule is presented in the table below.

<table>
<thead>
<tr>
<th>YEAR 1 - Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 505 Advanced Nutrient Metabolism (4 cr)</td>
<td>NUTR 810 Nutritional Assessment and Diagnosis (3 cr)</td>
<td>NUTR 820 Advanced Clinical Nutrition (3 cr)</td>
</tr>
<tr>
<td>NUTR 801 Leadership in the Nutrition Profession (1 cr)</td>
<td>NUTR 840 Advanced Nutrition Counseling (3cr)</td>
<td>NUTR 830 Advanced Community Nutrition and Education (3 cr)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEAR 2 - Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 500 Applied Statistics (3 cr)</td>
<td>NUTR 540 Research Methods (3 cr)</td>
<td>NUTR 560 Capstone Project in Nutritional Sciences (2-5 cr)</td>
</tr>
<tr>
<td>NUTR 850 Leadership Concepts and Application for the Nutrition Profession (3 cr)</td>
<td>ELECTIVE</td>
<td>ELECTIVE</td>
</tr>
</tbody>
</table>

Total credits = 30 required.
Capstone Project credits will be determined through consultation between the student and instructor prior to the student registering for the course. Credits will be based on both the scope of the project as well as the predicted time to completion. If the total Capstone credits equal less than 4, the student will be required to take an elective to earn a minimum of 30 credits prior to graduation.

Year 1 = 17 credits
Year 2 = 13 credits

e.

Residency According to Graduate Council’s “Residency and Related Policies for Off-Campus Graduate Degree Programs” promulgated by the Graduate School, “Professional master’s degree programs that fall under the definition of ‘off-campus degree programs’ must incorporate as many of the essential elements of residency as possible, including faculty-student and student-student interaction, access to instructional and other resources, exposure to and socialization in the field of study, and suitable academic advising.”

1. Interaction between faculty members and students above and beyond direct instruction:
In the proposed MPS in Nutritional Sciences program, interaction between faculty and students above and beyond direct instruction will be accomplished through a number of avenues.

**Academic and professional advising**

The full-time Director will advise each student admitted to the online MPS in Nutritional Sciences program with the assistance of the full-time coordinator and will work with these advisers to develop their plan of study for the program. The adviser will also be available for discussion of professional development goals and activities. As the program grows, additional faculty/advisers will be hired.

**Online Discussions**

Although discussion groups will be created within the organizational framework of specific classes, it is envisioned that they will extend beyond the immediate subject matter of the class and extend to current issues in the field of study. In addition to threaded asynchronous discussions within the Course Management System, live chats in chat rooms facilitated by the use of the Course Management System will be used to the extent feasible (given time differences among students). In addition, it is envisioned that Skype and other emerging technologies will be utilized to facilitate interaction.

2. **Interaction between peers:**

**Collaborative work groups**

Team projects will be required in many of the courses within the online MPS in Nutritional Sciences program. Various avenues for interaction (Google docs or similar technology, email, and chat rooms, among others) will be available to facilitate student interaction. Online discussions and discussion groups, are envisioned as being created within the context of most courses within the program, will facilitate interaction between students. Threaded student discussion forums will allow and encourage students to share knowledge and insights into the subject matter, air differences of opinion or areas of confusion, and enrich the learning process for all involved. The degree to which these discussions are mandatory, and the role they play in the determination of a student’s grade, will be left to the discretion of the faculty offering the course. Course instructors bear primary responsibility for creating and maintaining a course environment that fosters interaction, and will be assisted in this by course designers from the World Campus, and the Director of the program.

3. **Access to information and instructional resources:**

As Penn State students, the MPS in Nutritional Sciences students will have access to the electronic library research resources available to resident Penn State University students. The Penn State library system has electronic full-text access to the vast majority of current literature in the field, access to authoritative professional pronouncements, and access to accounting data for publicly-traded companies in the United States and internationally. For resources, which are not available, online, the Library also scans printed documents on request, delivering Portable Document format (.pdf) documents at a reasonable user fee charged to all students at registration. Additionally, students can request assistance by phone or email from Penn State University reference librarians.

4. **Exposure to and socialization in the field of study:**

**Exposure to the field of study**
As a professional degree, the topical content of the courses required for the MPS in Nutritional Sciences degree will focus on the important issues in the practice of nutrition and dietetics. Students will be thoroughly socialized in the field of study since current practice within the field of study is a core component of virtually all courses in the program.

**Participation in professional activities**

Students will be encouraged to maintain membership and participation in various national and regional professional organizations, and will be encouraged to attend professional conferences and eventually present as appropriate. Penn State University faculty and alumni have a major presence in most professional nutrition organizations, which will allow our students to interact with faculty and peers in person.

**5. Ready access to suitable academic advising and support services:**

**Academic advising**

Online MPS in Nutritional Sciences students will be assigned an adviser who is a member of the graduate faculty teaching in the MPS in Nutritional Sciences program. In addition to providing guidance in course selection and sequencing, the student’s adviser will also be able to provide advisement in the area of professional and career development.

**Support services**

The World Campus Student Services team handles inquiries about registration and records from prospective and current students, maintains students’ records, processes enrollments, and handles financial transactions. World Campus technical support assists students and faculty in any technological issues they may have, including both system and network configuration issues as well as directing students who need assistance towards the basic tutoring they may need in order to fully utilize the World Campus system.

**6. Contribution of graduate students to the degree program, the college, and the University, particularly with respect to research and scholarship:**

As a professional degree it is not expected that students will make substantial contributions to research and scholarship of the institution as a research-intensive institution. They will benefit from the expertise of faculty working in that milieu, and will take those benefits into the marketplace with them, but they are not expected to contribute directly to the research mission of the university. Since students will be encouraged and expected to join and participate in professional organizations, and complete a professional project. It is expected that many of the students will have the opportunity to present the results of their projects at professional meetings.

**7. Identification with Penn State:**

The MPS in Nutritional Sciences degree students will be interacting with each other, the director, and the coordinator as well as additional graduate faculty throughout their program. In addition, it is envisioned that through the use of webinars and other types of collaborative technology, students will have access to the vast network of PSU alumni. Unlike most students in resident programs, who identify with one campus or one college, students in the online MPS will be more familiar with the geographical dispersion of Penn State as well as the educational excellence that can found throughout the Penn State system.
Nutritional Sciences (NUTR)

Program Home Page

Michael H. Green, Interim Head of the Department of Nutritional Sciences
REBECCA CORWIN, Professor-in-Charge of Graduate Program in Nutrition
110 Chandlee Laboratory
814-863-9680

Degrees Conferred:
Ph.D., M.S., M.P.S.
Dual-Title Ph.D. (Nutritional Sciences and Clinical and Translational Sciences)

The Graduate Faculty

The Program
Ph.D., M.S., Dual-title Ph.D. (Nutritional Sciences and Clinical and Translational Sciences)

Graduates are prepared for careers in basic and applied research in nutrition and in college teaching. The course of study is planned to meet the professional objectives of the individual student. Students may emphasize molecular and cellular nutritional sciences, nutritional biochemistry, applied human nutrition, applied animal nutrition, nutrition education, and nutrition in public health. Supporting courses are available in biochemistry, physiology, genetics, microbiology, biophysics, food science, health policy and administration, human development and family studies, anthropology, sociology, psychology, public health sciences, and statistics.

Current research emphasizes minerals, vitamin A, lipid metabolism, metabolic disorders, nutrition and behavior, nutrition education strategies, evaluation of dietary intake and nutritional status, nutrition policy and health promotion, and disease prevention across the life cycle.

Facilities include well-equipped nutrition science laboratories with animal facilities supervised by a University laboratory animal resource staff. The Diet Assessment Center and the metabolic kitchens serve as laboratories for students in community nutrition, nutrition education, and metabolic nutrition.

M.P.S.

This online professional master’s degree is designed for those seeking to become registered dietitians, for those already registered and interested in enhancing their careers, and for those interested in pursuing a career with a focus in Nutritional Sciences. Graduates of the program may expect to become leaders on the health care team and other practice teams, and share their knowledge and expertise with other health care professionals and colleagues. Graduates will be positioned for career success and will be innovators in today's dynamic health and wellness sector.

Admission Requirements
Ph.D., M.S., Dual-title Ph.D. (Nutritional Sciences and Clinical and Translational Sciences)

Admission requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Scores from the Graduate Record Examinations (GRE), or from the Medical College Admission Test (MCAT), are required for admission. At the discretion of the graduate program, the GRE or other test scores may be waived for an individual on a case-by-case basis.

College graduates with an undergraduate degree in nutrition, animal sciences, food science, dietetics, or a related biological or social science will be considered for admission. Applicants should have a minimum
grade-point average of 3.00 (on a 4.00 scale), an acceptable score on the GRE (an average quantitative and verbal score above the fiftieth percentile), and three supporting recommendations. Exceptions may be made for students with special backgrounds, abilities, and interests. When openings are limited, the best-qualified candidates are given priority.

The basic expectations for admission from undergraduate studies include 6 credits in chemistry (organic and inorganic); 6 credits of nutrition and 3 credits or the equivalent of practice experience; 3 credits each in physiology, biochemistry, and nutrition. Students with more than 9 credits of deficiency and a superior record may be provisionally admitted to the graduate degree program. The deficiencies identified must be made up with a 3.00 grade-point average or better within the first two semesters.

Doctoral students with research and educational interests in clinical and translational science may apply for the Dual-Title Ph.D. Degree in Nutritional Sciences and Clinical and Translational Sciences following admission to the Graduate School and Nutritional Sciences and prior to taking the candidacy examination in Nutritional Sciences. An admissions committee comprised of faculty affiliated with the dual-title program will evaluate applicants. Applicants must have a graduate GPA of at least 3.5 in a research area related to human health. Prospective dual-title program students will write a statement of purpose that addresses the ways in which their research and professional goals will be enhanced by an interdisciplinary course of study in clinical and translational sciences.

M.P.S.

Admission requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Scores from the Graduate Record Examinations (GRE), or from the Medical College Admission Test (MCAT), are required for admission. At the discretion of the graduate program, the GRE or other test scores may be waived for an individual on a case-by-case basis. For applicants who have five years of practice experience in the profession of nutrition and dietetics, the GRE requirement will be waived.

College graduates with an undergraduate degree in nutrition, animal sciences, food science, dietetics, or a related biological/biomedical or health sciences will be considered for admission. Applicants should have a minimum grade-point average of 3.00 (on a 4.00 scale), an acceptable score on the GRE (an average quantitative and verbal score above the fiftieth percentile), and three supporting recommendations. Exceptions may be made for students with special backgrounds, abilities, and interests. When openings are limited, the best-qualified candidates are given priority.

The basic expectations for admission from undergraduate studies include 6 credits in chemistry (organic and inorganic); 6 credits of nutrition and 3 credits or the equivalent of practice experience; 3 credits each in physiology, biochemistry, and nutrition. Students with more than 9 credits of deficiency and a superior record may be provisionally admitted to the graduate degree program. The deficiencies identified must be made up with a 3.00 grade-point average or better within the first two semesters.

M.P.S. Degree Requirements

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

The program can be completed on a full-time basis in 24 months or students may elect to complete the program on a part-time basis. Requirements for the completion of the Master of Professional Studies in Nutritional Sciences degree include 30 credits at the 500 and 800 level, with a minimum of 6 credits of 500-level course work. All students must enroll in NUTR 560 Capstone Project in Nutritional Sciences and successfully complete the Capstone Project in order to earn the M.P.S. degree.

Master of Science Degree Requirements
Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

The graduate program in Nutritional Sciences offers the M.S. degree with an emphasis in basic nutritional sciences, applied human nutrition, or nutrition in public health. The M.S. degree requires 30 credits of course work at the 400 level or higher, including at least 12 credits in 500-level courses and 6 credits at the 600-level (NUTR 600 or 610). The M.S. degree with an emphasis on nutrition in public health requires a 4-credit field experience. Students must write and defend a master’s thesis accepted by the advisers and committee members, the head of the graduate program, and the Graduate School.

**Doctoral Degree Requirements**
Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

Students must pass a candidacy examination designed to assess the student's potential and academic preparation for doctoral study. Candidacy examinations must be scheduled by students with a master's degree after they have completed 10 credits in doctoral work but before the end of the second semester following admission to the graduate program. The candidacy examination is administered and evaluated by the Graduate Candidacy Committee. Each student will have a doctoral committee comprised of graduate faculty internal and external to the Graduate Program in Nutritional Sciences, in accordance with Graduate Council requirements. Students must pass a comprehensive examination, the specific format and content of which is determined in consultation with the doctoral committee. A successful defense of a research project, and the writing of a satisfactory dissertation accepted by the doctoral committee, the head of the graduate program, and the Graduate School, along with the passing of a final oral examination in Nutritional Sciences, is required.

**Communication and Language Requirement:** Doctoral students must demonstrate competency in spoken English as judged by the program faculty and in technical writing by completion of ENGL 418 with a grade of B or better. Students also must complete satisfactorily 2 to 3 credits at the 400 or 500 level from any one of the following areas: (1) college teaching; (2) logic or philosophy of science; (3) foreign language; or (4) computer science. There are no specific course requirements; however, the academic program is developed by the student in consultation with his or her adviser to develop doctoral-level competence in nutrition and one or more supporting areas. Students are expected to participate in a colloquium each semester and enroll in a seminar on a regular basis.

**Dual-Title Ph.D. Degree in Nutritional Sciences and Clinical and Translational Sciences:**
This dual-title degree program emphasizes interdisciplinary scholarship at the interface of basic sciences, clinical sciences, and human health. Students in the dual-title program are required to have two advisers from separate disciplines: one individual serving as the primary adviser in the Graduate Program in Nutritional Sciences and another individual serving as the secondary adviser in an area covered by the dual-title program who is a member of the Clinical and Translational Sciences faculty.

The Dual-Title Ph.D. Degree in Nutritional Sciences and Clinical and Translational Sciences requires the completion of 18 credits of course work from an approved list of courses covering the areas of epidemiology, bioinformatics, experimental design and interpretation, statistics, regulatory environment, and scientific communication. Approximately 12 credits of course work may overlap with required elective courses of the Graduate Program in Nutritional Sciences.

Students seeking the dual title must apply and be accepted prior to taking the candidacy examination. For students in the dual-title program, the candidacy examination will include content from both the Graduate Program in Nutritional Sciences and the Clinical and Translational Sciences programs and it must be taken within three semesters (summer sessions do not count) of entry into the program. The candidacy committee must include at least one member of the Clinical and Translational Sciences graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.
In accordance with Graduate Council policy, the doctoral committee of a Nutritional Sciences and Clinical and Translational Sciences dual-title doctoral degree student must include at least one member of the Clinical and Translational Sciences graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the chair of the committee representing Nutritional Sciences is not also a member of the graduate faculty in Clinical and Translational Sciences, the member of the committee representing Clinical and Translational Sciences must be appointed as co-chair.

The fields of nutritional sciences and clinical and translational sciences will be integrated in the student’s comprehensive examination. All students are required to conduct dissertation research that contributes fundamentally to the fields of nutritional science and clinical and translational sciences. In order to earn the dual-title Ph.D. degree, the dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School, and the student must pass a final oral examination.

**Student Aid**
Fellowships, traineeships, graduate assistantships, and other forms of financial aid are described in the STUDENT AID section of the Graduate Bulletin. Students on graduate assistantships must adhere to the course load limits set forth in the Graduate Bulletin.

**Courses**
Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

**NUTRITION (NUTR) course list**

**e. Admission requirements for the Master of Professional Studies in Nutritional Sciences**

Requirements listed here are in addition to general Graduate Council requirements stated in the GENERAL INFORMATION section of the General Bulletin.

Scores from the Graduate Record Examinations (GRE), or from the Medical College Admission Test (MCAT), are required for admission. At the discretion of a graduate program, the GRE or other test scores may be waived for an individual on a case-by-case basis. For applicants who have five years of practice experience in the profession of nutrition and dietetics, the GRE requirement will be waived.

College graduates with an undergraduate degree in nutrition, animal sciences, food science, dietetics, or a related biological/biomedical or health sciences will be considered for admission. Applicants should have a minimum grade-point average of 3.00 (on a 4.00 scale), an acceptable score on the GRE (an average quantitative and verbal score above the fiftieth percentile), and three supporting recommendations. Exceptions may be made for students with special backgrounds, abilities, and interests. When openings are limited, the best-qualified candidates are given priority.
The basic expectations for admission from undergraduate studies include 6 credits in chemistry (organic and inorganic); 6 credits of nutrition and 3 credits or the equivalent of practice experience; 3 credits each in physiology and biochemistry. Students with more than 8 credits of deficiency and a superior record may be provisionally admitted to the graduate degree program. The deficiencies identified must be made up with a 3.00 grade-point average or better within the first two semesters.

f. Justification for the degree title

The professional degree title Master of Professional Studies in Nutritional Sciences reflects a course of study that promotes professional development in the discipline of nutrition and dietetics. The M.P.S. in Nutritional Sciences degree program is designed to prepare and position graduates for career advancement in the profession.

g. Accreditation

At this writing, guidelines have not been issued for accreditation of Master’s Degree Programs in Nutrition. If and when they are issued, we will comply with the standards for accreditation.

h. Written responses from departments affected

The letter from the Department of Statistics provides support for the teaching of STAT 500 to students enrolled in our program. The letter from the Department of Nutritional Sciences notes that the department will be able to accommodate the need for faculty to teach NUTR 520 as an online course. The two letters of support are included at the end of this proposal.

i. Written evidence of consultation with the Office for Research Protections regarding Scholarship and Research Integrity (SARI) requirements.

The email below to Lynn Parker Klees (Online Program Committee Member) provides evidence of our consultation with the Office of Research Protections about meeting SARI requirements. Following the email from Brad Woods, Research Ethics Educator, is the required form that describes how students in the program will meet the SARI requirements.

From: "brw150" <brw150@psu.edu>
To: "lgp2" <lgp2@psu.edu>
Cc: "Shriver, Sharon" <sps10@psu.edu>, "Dries, Sara" <sad33@psu.edu>
Sent: Thursday, August 13, 2015 10:18:19 AM
Subject: SARI@PSU consultation

Hi Lynn,
Thank you for consulting with us concerning the proposed MPS program in Nutritional Sciences.

Attached are two files: the SARI@PSU Program Plan for HHD and a SARI@PSU Program Plan template. As I mentioned during our phone conversation, the latter document explains the intent of SARI@PSU and provides suggestions for creating a Program Plan that can accommodate disciplinary needs.

If you have any further questions, please do not hesitate to contact us.

Best,

Brad R. Woods, Ph.D.
Research Ethics Educator
Office for Research Protections
The 330 Building
Suite 205
The Pennsylvania State University
University Park, PA 16802
SARI@PSU Program Plan

College (and graduate program) submitting this SARI@PSU Program Plan:
College of Health and Human Development /Master of Professional Studies in Nutritional Sciences

Part 1: CITI online RCR training program:
Please describe A) how students will be made aware of the requirement; B) when students will be expected to complete the requirement; and C) how student participation will be monitored:

A) Students will be made aware of this requirement upon admission to the program and will be expected to complete CITI training by the completion of their first semester within the program.
B) Student participation and completion will be monitored by the Program Director. CITI completion certificates will be maintained on file.

Part 2: Five hours of discussion-based RCR education:
Type of program(s) to be offered (e.g. workshop, seminar series, credit offering, ORP workshop, etc.) and frequency of offering:

Course #: NUTR 520, Hours devoted to RCR: 5 hours
Course name: Readings in Nutrition
Instructor(s) of record: Penny Kris-Etherton
Frequency of offering: Students will take the 1-credit course twice.

RCR content as described in syllabus:
Purpose of course: The purposes of this course are:
1. To expose students to the depth and breadth of nutrition as a field of inquiry.
2. To nurture students' appreciation and understanding of research design, statistics, and research methodology.
3. To develop critical thinking and the analytic skills necessary to examine and appraise the nutrition research literature.
4. To provide students with the opportunity to learn effective presentation techniques (via both observation and personal experience).
5. To give students practice at delivering a professional seminar.
6. To provide students with an opportunity to share their expertise and
question and discuss different perspectives relevant to current issues.

7. To provide an overview of the ethical issues encountered by scientists in conducting
research, analyzing data, and publishing study results (presented spring semester).

**How will discussion be facilitated in the instruction?**

This will be done via discussion boards and presentations.

**Please explain how your plan will meet the needs of students in particular disciplines or programs in your college, considering the different categories of programs (e.g. Biomedicine, Science and Engineering; Social Sciences; Humanities; and Professional):**

This plan will meet the unique needs of the graduate students in the MPS in Nutritional Sciences program by focusing on nutrition specific research, ethics and universal principles of research integrity. The focus of our Master’s program is on developing ethical leaders who will be positioned to make significant contributions to the field.
Graduate Council  
Program, Option, or Minor Proposal Form

Submit 1 original, signed Graduate Council proposal form and 2 hardcopies of the graduate program proposal document, with a copy of the signed proposal form attached to each proposal copy, to the Curriculum Coordinator, University Faculty Senate, 101 Kern Graduate Building, University Park. The proposals will be transmitted to the Office of the Dean of the Graduate School for entry into the Graduate Council curricular review process; for more information about the process, see the Overview of the Graduate Council Curricular Review Process.

The Program Proposal Procedures provide guidance for the development of a graduate program proposal. If you have questions regarding the preparation of a graduate program proposal or how to complete this Graduate Council proposal form, contact the Office of the Dean of the Graduate School.

<table>
<thead>
<tr>
<th>College/School:</th>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department or Instructional Area:</td>
<td>Department of Sociology</td>
</tr>
</tbody>
</table>

New Graduate Program, Option, or Minor:  
- [ ] Add
- [ ] Change
- [ ] Drop

Designation of new graduate program:  
Dual-title Ph.D. in Sociology and Social Data Analytics

Classification of Instructional Programs (CIP) Code:

Designation of new graduate option:  
Dual-title Ph.D. in Sociology and Social Data Analytics

Designation of new graduate minor:  
Graduate Minor in Social Data Analytics

Indicate effective semester:
- [ ] First semester following approval
- [ ] Second semester following approval

Existing Graduate Program Option, or Minor:  
- [ ] Change
- [ ] Drop

Current designation of graduate program:

Current designation of graduate option:

Current designation of graduate minor:

New designation of existing graduate program (if changing):

New designation of existing graduate option (if changing):

New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above):

Indicate effective semester:
- [ ] First semester following approval
- [ ] Second semester following approval

Submitted by Graduate Program Head

Melissa Hardy  
Printed name  
Signature  
Date: 1/10/16

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:

Lisa Nelson  
Printed name  
Signature  
Date: 1/4/2016

Approved by College/School Dean/Chancellor (or Designee):

Eric Silver  
Printed name  
Signature  
Date: 1/7/16
Recommended by Chair, Graduate Council Subcommittee on New and Revised Programs and Courses:

On Behalf of Luis Ayala
Printed name
Signature
Date: 3/1/2016

Recommended by Chair, Graduate Council Committee on Programs and Courses:

On Behalf of Andris Freivalds
Printed name
Signature
Date: 3/1/2016

Noted by Dean of the Graduate School:

On Behalf of Regina Vasilatos-Younken
Printed name
Signature
Date: 3/1/2016
A Proposal to Graduate Council to Adopt the Dual-Title Doctoral Degree Program in Social Data Analytics

Submitted by Sociology Program in the Department of Sociology and Criminology

Contact:
John Iceland
Head, Department of Sociology and Criminology
Oswald Tower 202
814-867-2821
di10@psu.edu

Melissa Hardy
Graduate Director in Sociology
Oswald Tower 502
814-867-4337
mah38@psu.edu
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VI. Proposed Amendment to Graduate Bulletin for Sociology (SOC) (clean copy) ............ 26

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I. Overview

The graduate program in Sociology proposes to adopt the dual-title Ph.D. degree program in Social Data Analytics.

II. Justification for the Dual-Title Ph.D. in Sociology and Social Data Analytics

Easy access to exceptionally large data sets, the ability to collect detailed and time-intensive data that create large person-based observational matrices to study change, the growing availability of high dimensional relational data, and the possibility of capturing millions of observations from social media or web-based applications has spurred the development of techniques to manage and analyze massive amounts of data. These developments in data science and analytics are creating a new trans-disciplinary field of inquiry, which combines statistics, computer science, and visual analytics. Socially-generated big data capturing networks of interactional data present the social sciences with an opportunity to develop analytic tools that address the structure and content of these interactions. Although the underlying social processes are addressed by sociological theory, these structural concepts and the processes in which they are embedded have been difficult to test. New interaction technologies, such as web-based exchanges recorded in real-time, mobile devices, and distributed sensors have added a quantifiable dimension to these core dynamics of social relationships. Digitization, sharing of document and image archives, and unprecedented increases in data storage capacity have transformed what was once a scarce resource—information—into massive compilations of data that can be linked, visualized, and transformed. The challenge is to develop appropriate techniques that allow us to organize this information into meaningful patterns of social relevance.

Many of the standard techniques of data analysis are based on the assumption of limited information sampled from large populations. The goal was to connect the findings from analyzing sample data to the population. Extensive technical literatures were developed to apply probability theory to sampling, weighting, measurement, and analysis. Big and complex social data challenge these conventional inferential research models in the social sciences, computational and information sciences, and statistics and visualization. The scale and complexity of data expanded faster than the capabilities of hardware, algorithms, and research designs of conventional social science, forcing us to catch up and adapt to data availability. At the same time, theoretical foundations of data analytics must drive the techniques, and both are moving quickly. Although the traditional training in research methodology provided by Ph.D. programs builds an essential foundation for data analytics, big and complex social data require additional strategies that reflect the emerging contexts of social research.

In 2009, the Penn State Quantitative Social Science Initiative, with the Department of Sociology as a core member, began discussions with faculty across Penn State about mechanisms for leveraging existing and emerging strengths in component disciplines to develop an interdisciplinary training model to meet these challenges. These efforts culminated in 2012 with a $3 million award from the National Science Foundation’s Integrative Graduate Education and Research Traineeship (IGERT) program (which has received further support totaling over $2 million from the College of Liberal Arts, the College of Human
Health & Development, the College of Information Sciences & Technology, the College of Sciences, the College of Earth & Mineral Sciences, the College of Engineering, the Social Science Research Institute, the Institute for CyberScience, and the Office of the Vice President for Research) to develop a new model for interdisciplinary Ph.D. training in “Big Data Social Science,” to be instantiated in a new dual-title Ph.D. program in “Social Data Analytics.”

Since 2012, the Big Data Social Science IGERT (BDSS-IGERT) has funded three cohorts totaling 19 Ph.D. students, and selected a fourth cohort of six Ph.D. students – in Political Science, Human Development & Family Studies, Sociology, Demography, Statistics, Geography, and Information Sciences & Technology – for two-year traineeships involving research rotations, collaborative research projects, externships, and a transitional curriculum in Social Data Analytics. The proposal for the Social Data Analytics dual-title was developed, refined, and detailed in the multiyear IGERT proposal process, and refined through the experience of the first three years of BDSS-IGERT.

A unique and defining feature of the proposed Social Data Analytics dual-title Ph.D. degree program, within the current explosion of programs in “data science,” “analytics,” “big data,” and similar areas, is the integration of social science perspectives to the field of study. We distinguish this, sharply, from the usual characterization of social science as a “domain” of data science, and characterize social scientific thinking as a core pillar of Social Data Analytics.

Further, the multidisciplinary, comparative intellectual vision of the proposed Dual-Title Doctoral Degree Program in Social Data Analytics is fundamental to the mission of Penn State’s College of the Liberal Arts (CLA), as set forth in the College’s Strategic Plan for 2014-2019, titled “Excellence for the 21st Century.”

In this document, CLA makes the following commitment to the development of new and exciting intellectual programs, including dual-title doctoral degree programs:

“Drawing on our past success with innovative dual-title Ph.D. programs, we will continue to invest strategically in new interdisciplinary dual-title programs. Specifically, we will continue to provide substantial support for our NSF-funded big data social science IGERT graduate training program, which spans several disciplines and colleges. We aim to develop a dual-title Ph.D. program in Social Data Analytics and create an undergraduate degree and M.P.S. in social data analytics both in-residence and online.”

Despite the push for training in the field of Big Data and Social Science, only a few cohesive doctoral level programs exist to date, and most do not provide multidisciplinary degrees: Stanford’s Social Data Lab and Harvard’s Institute for Quantitative Social Science are great examples of sites for big data research in the social sciences, but do not offer doctoral programs. Most of the programs available are master’s degree programs, and few, if any, focus on big data in the social sciences. Anecdotal evidence of extensive interest in this type of program is found in the queries, calls, and emails received from

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1 The IGERT (and now National Research Traineeship - NRT) programs are highly competitive and an explicit strategic target of the University’s Strategic Initiatives and Research Office (SIRO). SIRO’s official best practice guidelines, which govern the internal “downselect” process to determine the Penn State submission, include the proposal of a dual-title degree: https://www.research.psu.edu/limitedsubs/information/igert/IGERT_BP_Recomm.pdf. Penn State’s only other successful IGERT is instantiated in the Dual-Title Graduate Program in Biogeochemistry: http://www.biogeochemistry.psu.edu/.

2 http://www.la.psu.edu/about/documents/LiberalArtsStrategicPlan81214.pdf/at_download/file
students, directors of graduate studies, and other faculty since the announcement of the Big Data Social Science IGERT award at Penn State in September 2012. The dual-title program will leverage the collaborative relationships, activities, and funding established within the ongoing IGERT program as a foundation on which to build a program for the study of big data integrating a social science orientation. Owing to its uniqueness, the proposed program provides an academic niche, which will contribute to Penn State’s vision of becoming a leader in multidisciplinary, international, and multicultural scholarship. Moreover, we aim not only to place graduates in highly competitive academic positions to lead this new science, but also to demonstrate the relevance of Ph.D. training for some portion of those nonacademic positions in “deep analytics.” These career goals challenge the conventional approach of Ph.D. education in the social sciences, where academic employment has been the primary focus.

For students in Sociology, the Social Data Analytics dual-title offers an intellectual opportunity to combine the strength of sociological methodology with interdisciplinary approaches to big data and analytics. An essential component of this training involves instruction by faculty from computational, informational, statistical, and visual analytic sciences, as well as other social sciences.

In summary, the proposed dual-title Ph.D. in Sociology and Social Data Analytics will:

- Provide a cohesive curriculum for in-depth training in sociology sufficient to succeed as a sociologist and a breadth of training across computational, informational, statistical, and visual analytic sciences sufficient to be a leader in the emerging field of social data analytics.
- Train Sociology Ph.D.s to play a leadership role in expanding the capabilities of social data analytics and use those capabilities in creative ways to answer important social scientific questions.
- Supply to both the academic and nonacademic markets, Sociology Ph.D.s whose training improves their ability to consider diverse perspectives on social data access, use, and distribution and in considering those issues, to prioritize ethics, scientific responsibility, and social consequences.
- To enhance their communication skills to they can make the complexity and the challenges of Social Data Analytics accessible to members of both scientific and nonscientific communities and expert and general audiences.

III. Description of Required Social Data Analytics Course Work

A. General Course Work Requirements in the Dual-Title Ph.D. program in Social Data Analytics

The minimum course work requirements for the dual-title Ph.D. degree in Social Data Analytics are as follows:

- Course work and other requirements for the primary program.
- SO DA 501 (3 credits)
- SO DA 502 (3 credits)
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social
Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:

- (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
- (Q) Quantification distribution. 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives.
- (C) Computational / informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.
- (S) Social distribution. 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated (S) on the list of approved electives.
- Cross-departmental distribution.
  - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department.
  - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
  - 6 or more credits in approved courses outside the primary program.
  - 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SO DA electives that also meet requirements of the primary program. Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department and Social Data Analytics.

Through satisfaction of home degree requirements and appropriate choice of electives to satisfy multiple criteria, students may fulfill these requirements with as few as 12 credits outside their home program (SO DA 501, SO DA 502, and 6 credits of appropriate interdisciplinary electives). In particular, students are encouraged to take courses carrying multiple AQCS designations.

There is no formal maximum number of credits from the primary degree that can be double-counted toward the SO DA degree. For those meeting the SO DA elective requirement with the minimum of 12 credits, the outside-program minimum effectively limits the number of primary degree credits that count toward SO DA at 6. Adopting programs and advising committees may limit the number of credits taken for the SO DA degree that can count toward home degree requirements.
B. Course Work Requirements, Dual-Title Ph.D. in Sociology and Social Data Analytics

The following provides a side-by-side summary of how Social Data Analytics course work requirements interact with Sociology course work requirements in the dual-title Ph.D. in Sociology and Social Data Analytics.

Table 1. Comparison of Course Work Requirements

<table>
<thead>
<tr>
<th>Ph.D. in Sociology</th>
<th>Ph.D. in Sociology &amp; Social Data Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>Total credits</strong></td>
</tr>
<tr>
<td>A minimum of 56 post-baccalaureate credits of course work.</td>
<td>A minimum of 56 post-baccalaureate credits of course work.</td>
</tr>
<tr>
<td><strong>Areas of Concentration</strong></td>
<td><strong>Areas of Concentration</strong></td>
</tr>
<tr>
<td>Completion of course work in one major field in Sociology and one minor field in Sociology as outlined in the graduate student handbook.</td>
<td>Completion of course work in one major field in Sociology and one minor field in Social Data Analytics as outlined in the graduate student handbook.</td>
</tr>
<tr>
<td>• SOC Major field (12 credits)</td>
<td>• SOC major field (12 credits)</td>
</tr>
<tr>
<td>• SOC Minor field (9 credits)</td>
<td>• SOC DA minor field (9 credits)</td>
</tr>
<tr>
<td><em>Designated fields include demography; family, life course, and aging; criminology; stratification and inequality; sociology education; urban and community studies; and quantitative methods.</em></td>
<td>9 credits of the 18 required for SO DA (SO DA 501, SO DA 502, and 3 out-department credits) are attributed internally within sociology to the SO DA “minor field.”</td>
</tr>
<tr>
<td><strong>Required methods course work</strong></td>
<td><strong>Required methods course work</strong></td>
</tr>
<tr>
<td>• SOC 513 (3 cr)</td>
<td>• SOC 513 (3 cr)</td>
</tr>
<tr>
<td>• SOC 574 (3 cr)</td>
<td>• SOC 574 (3 cr)</td>
</tr>
<tr>
<td>• SOC 575 (3 cr)</td>
<td>• SOC 575 (3 cr)</td>
</tr>
<tr>
<td>These also satisfy certain SO DA distribution requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>Professional development seminars</strong></td>
<td><strong>Professional development seminars</strong></td>
</tr>
<tr>
<td>• SOC 500 (1 cr)</td>
<td>• SOC 500 (1 cr)</td>
</tr>
<tr>
<td>• SOC 591 (1 cr)</td>
<td>• SOC 591 (1 cr)</td>
</tr>
</tbody>
</table>
### Distributional Requirement
- **CRIM XXX (3 cr)**
  Ph.D. students in Sociology must take 3 credits of a distributional requirement with a CRIM prefix (among many offered—CRIM 558; CRIM 512; CRIM 597).

### Distributional Requirement
- **CRIM XXX (3 cr)**
  Ph.D. students in Sociology must take 3 credits of a distributional requirement with a CRIM prefix (among many offered—CRIM 558; CRIM 512; CRIM 597).

### Required Social Data Analytics core seminars
- **SO DA 501 (3 credits)**
- **SO DA 502 (3 credits)**

### SO DA-approved distribution electives

<table>
<thead>
<tr>
<th>12 or more credits in approved electives, collectively meeting the following distribution requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>A</strong>: Analytics (3+ cr)</td>
</tr>
<tr>
<td>- <strong>Q</strong>: Quantification (6+ cr)*</td>
</tr>
<tr>
<td>- <strong>C</strong>: Computational/informational (6+ cr)</td>
</tr>
<tr>
<td>- <strong>S</strong>: Social (6+ cr)*</td>
</tr>
<tr>
<td>- 6 or more credits outside SOC</td>
</tr>
<tr>
<td>- 3 or more credits in disciplinary cluster 1: STAT or social science*</td>
</tr>
<tr>
<td>- 3 or more credits in disciplinary cluster 2: IST, GEOG, CSE, CMPSC or engineering</td>
</tr>
<tr>
<td>- 3 or fewer credits at the 400-level.</td>
</tr>
</tbody>
</table>

* The Q, S, and social science elective requirements are fulfilled by the methods sequence courses in the Sociology Ph.D.

The remaining requirements can be met by as few as 6 credits (two courses), as long as one course is in the GEOG/IST/Engineering cluster, the other is outside SOC, both carry the C designation, and one carries the A designation. Examples of such pairs:

- **IST 557 (Data Mining: Techniques and Applications) & STAT 540 (Statistical Computing)**
- **STAT 557 (Data Mining I) & GEOG 560 (Seminar in Geographic Information Science)**
- **IE 561 (Data Mining Driven Design) & CSE 583 (Pattern Recognition—Principles and
3 of these 6 credits are attributed within sociology accounting to the minor field in SO DA.

Scholarship and Research Integrity

SARI@PSU requirement is fulfilled through SOC 500, departmental brownbags, ORP workshops, and certification of CITI course completion.

C. Example Course Work Path, Dual-Title Ph.D. in Sociology and Social Data Analytics

Table 2 illustrates an example path through course work and other milestone requirements of the dual-title Ph.D. in Sociology. It is modeled on course paths actually taken by Sociology Ph.D. students in BDSS-IGERT.

Table 2. Example Path Through Dual-Title Ph.D.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Department/#</th>
<th>Course Title</th>
<th>A</th>
<th>C</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SOC 502</td>
<td>Theories of Society I (3 credit)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 574</td>
<td>Statistical Methods for Social Research (3 credit)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 596</td>
<td>Statistics Computing Lab 1 (1 credit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 524</td>
<td>Demography of Human Fertility (3 credit)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 500</td>
<td>Introduction to Graduate Study in Sociology (1 credit)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 575</td>
<td>Statistical Models for Nonexperimental Research (3 cr)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 596</td>
<td>Statistics Computing Lab 2 (1 credit)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 513</td>
<td>Sociological Research Methods (3 credit)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOC 523</td>
<td>Internal and International Migration (3 credits)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Year 2

<table>
<thead>
<tr>
<th>Department/#</th>
<th>Course Title</th>
<th>A</th>
<th>Q</th>
<th>C</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 573</td>
<td>Demographic Techniques (3 credits)</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SOC 526</td>
<td>Health Disparities (3 credits)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SOC 600</td>
<td>Thesis Credits (6 credits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO DA 501</td>
<td>Big Social Data: Approaches and Issues (3 credits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRIM XXX</td>
<td>Elective in Criminology</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SOC 532</td>
<td>Global Health and Mortality</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>SOC 591</td>
<td>Teaching Sociology (1 credit)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*M.A. Thesis defense - End of Semester 4*

### Year 3

<table>
<thead>
<tr>
<th>Department/#</th>
<th>Course Title</th>
<th>A</th>
<th>Q</th>
<th>C</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO DA 502</td>
<td>Social Data Analytics: Approaches and Issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 592</td>
<td>Writing for Publication in the Social Sciences</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>IST 556</td>
<td>Web Analytics: Research Approaches for Online Data</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

*Candidacy Exam early fall semester*

| IST 557      | Data Mining: Techniques and Applications (3 credits)     | X | X | X |   |
| SOC 578      | Multilevel Regression Models (3 credits)                 | X | X |   |   |
| STAT 540     | Statistical Computing                                    |   | X | X |   |

*Dissertation Proposal Defense No later than semester 8*

*Comprehensive exam: No later than semester 8*

<table>
<thead>
<tr>
<th>A</th>
<th>Q</th>
<th>C</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>24</td>
<td>9</td>
<td>36</td>
</tr>
</tbody>
</table>

This example satisfies sociology course requirements:

- Required courses (19 cr + thesis hours): SOC 500, 502, 513, 574, 575, 596(2), 591, 600, CRIM 5XX
- Major area in Demography (12 cr): SOC 523, 524, 526, 532
- Minor area in Social Data Analytics (9cr): SO DA 501, SO DA 502, IST 557
- Seminars in SOC (9cr): SOC 592,578,573

This example satisfies Social Data Analytics course requirements:

- Required courses (6 cr): SO DA 501, 502
- SO DA-approved electives (45 cr > 12 cr): All courses marked A, Q, C, or S in Table 3.
- Analytics distribution (3 cr): IST 557
- Quantification distribution (30cr > 6cr): 8 SOC courses, STAT 540, IST 557
• Computational / informational distribution (9 cr > 6 cr): IST 557, STAT 540, IST 556
• Social distribution (36 cr > 6 cr): 12 SOC courses.
• Disciplinary cluster 1 (STAT / Social Science) (18 cr > 3 cr): 5 SOC courses, STAT 540
• Disciplinary cluster 2 (IST / GEOG / Engineering) (6 cr > 3 cr): IST 557, IST 556
• Out-program distribution (non-SOC) (9 cr > 6 cr): STAT 540, IST 557, IST 556
IV. Additional Requirements, Dual-Title Ph.D. in Social Data Analytics

The following provides a side-by-side summary of how additional Social Data Analytics requirements compare to and interact with Sociology requirements in the dual-title Ph.D. in Sociology and Social Data Analytics.

Table 3. Comparison of Other Requirements

<table>
<thead>
<tr>
<th>Candidacy Committee</th>
<th>Candidacy Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to candidacy exam, a dossier is created that should contain: transcripts, assistantship evaluations, and faculty evaluations supplied by the graduate officer; the M.A. thesis, an additional paper (written during the course of graduate study while at Penn State), and a plan of doctoral study supplied by the student. The plan of doctoral study must include probable course selections and doctoral committee members. The Graduate Director and members of the Graduate Program Committee are responsible for evaluating the dossier and determining the outcome of the candidacy exam. After admission to candidacy, Ph.D. students are required to meet with their advisers prior to each subsequent registration for the purpose of discussing the candidates’ progress on their plans of study and revising such plans as appropriate.</td>
<td>Prior to candidacy exam, a dossier is created that should contain: transcripts, assistantship evaluations, and faculty evaluations supplied by the graduate officer; the M.A. thesis, an additional paper (written during the course of graduate study while at Penn State), and a plan of doctoral study supplied by the student. The plan of doctoral study must include probable course selections and doctoral committee members. The Graduate Director and members of the Graduate Program Committee are responsible for evaluating the dossier and determining the outcome of the candidacy exam. After admission to candidacy, Ph.D. students are required to meet with their advisers prior to each subsequent registration for the purpose of discussing the candidates’ progress on their plans of study and revising such plans as appropriate.</td>
</tr>
</tbody>
</table>

There will be a single candidacy exam, containing elements of both Sociology and Social Data Analytics. The candidacy committee must contain at least one member from the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

<table>
<thead>
<tr>
<th>Candidacy Exam</th>
<th>Candidacy Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Held as soon as possible after the completion of the M.A. paper, but no later than the fall semester of year 3.</td>
<td>Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, dual-title graduate degree students may require an</td>
</tr>
</tbody>
</table>
additional semester to fulfill requirements for both areas of study; therefore, with the permission of the Graduate Director, the candidacy examination may be delayed one semester beyond the normal period allowable.

<table>
<thead>
<tr>
<th>Doctoral Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>The doctoral committee must conform to all requirements of the Graduate Council. In accordance with Graduate Council requirements, the doctoral committee is composed of at least four members of the graduate faculty, at least one of whom must be from outside the Sociology department or represent a different disciplinary perspective (based on scholarly work or field in which the Ph.D. was received). The committee must include faculty members having recognized expertise in the major and minor areas of specialization selected by the student, as well as expertise in general social theory, research methods, and statistics. One faculty member is designated chair of the doctoral committee; ordinarily this person also serves as general adviser and director of the dissertation. Students are strongly encouraged to choose a committee chair as early as possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Doctoral Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>The doctoral committee must conform to all requirements of the primary program and the Graduate Council. In accordance with Graduate Council requirements, the doctoral committee shall contain at least four members, at least one of whom must be from outside the Sociology department or represent a different disciplinary perspective (based on scholarly work or field in which the Ph.D. was received). In addition, at least one of the committee members must be a member of the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the committee chair does not serve in this combined role, Graduate Council policy dictates that the Social Data Analytics graduate faculty member must be designated as co-chair of the committee. The committee must include faculty members having recognized expertise in the major and minor areas of specialization selected by the student, as well as expertise in general social theory, research methods, and statistics.</td>
</tr>
</tbody>
</table>

The ideal arrangement is for a member of the Social Data Analytics graduate faculty with primary appointment in the primary program to act as dissertation chair, and for a member of the Social Data Analytics graduate faculty with primary appointment outside the administrative unit of the primary program to act as both Outside Field Member and Outside Unit Member.

<table>
<thead>
<tr>
<th>Comprehensive Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>The comprehensive examination consists of written and oral segments. The written comprehensive will be a closed-book examination administered in four three-hour sessions, normally</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comprehensive Exam</th>
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</thead>
<tbody>
<tr>
<td>The comprehensive examination consists of written and oral segments. The written comprehensive will be a closed-book examination administered in four three-hour sessions, normally</td>
</tr>
</tbody>
</table>
morning and afternoon sessions on two consecutive days. At the discretion of the committee, up to one extra hour per session may be given to students who are not native speakers of English. The comprehensive examination is based on a reading list distributed to and approved by all members of the Ph.D. supervisory committee at least one month prior to the date of the written portion of the exam.

The oral portion of the comprehensive examination is a scheduled meeting of the candidate with the candidate’s doctoral committee. Normally, the oral part of the exam occurs two to three weeks after the written exam. The oral exam is an occasion for feedback and discussion of the student’s written examination performance. The oral exam also consists of a dissertation proposal hearing. If a student fails the comprehensive exam, the proposal hearing will be canceled.

The dissertation proposal must contain substantial Social Data Analytics content.

Dissertation Proposal

Within six months of passing the comprehensive examination, a student must submit to the Director of Graduate Studies a detailed dissertation proposal approved by the student’s doctoral committee. In a few cases, the dissertation prospectus may satisfy this requirement.

Dissertation Defense

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The
oral examination is administered by the doctoral committee. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.

oral examination is administered by the doctoral committee.

The student must write and orally defend a dissertation that reflects their original research and education in Sociology and Social Data Analytics. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.
V. Proposed Amendment to Graduate Bulletin for Sociology (SOC) (changes relevant to dual-title programs tracked in red. NOTE: We are using this opportunity to update our Graduate Bulletin entry for the overall program and include a description of our dual-title program in sociology and demography comparable to that of SO DA. Our existing description of the graduate program in sociology was both cryptic and somewhat outdated in terms of renamed areas of concentration, for example. In that sense, this entire entry changes the text under Sociology)

Sociology (SOC)

Program Home Page

JOHN ICELAND, Head of the Department of Sociology, and Crime, Law, and Justice
211 Oswald Tower
814-863-8260

Degrees Conferred:
M.A., Ph.D.
Dual-Title M.A. and Ph.D. in Sociology and Demography
Dual-Title Ph.D. in Sociology and Social Data Analytics

The Graduate Faculty

The Program

The graduate program in Sociology offers advanced education for students who intend to pursue academic careers in sociology or who aspire to nonacademic research positions.

The M.A. and Ph.D. programs provide training in general social theory, research methodology, statistics, and a number of traditional and developing substantive specialties. In consultation with faculty advisers, students select two specialties that are among the department’s strengths, such as demography (including health and immigration); family, life course, and aging; criminology; stratification and inequality; sociology of education; urban and community studies; or quantitative methods.

Alternate specialty areas not listed above may be selected as the major or the minor, with the approval of the Graduate Director and the student’s doctoral committee. Students may elect to pursue a dual-title M.A. and Ph.D. in Sociology and Demography, or a dual-title Ph.D. in Sociology and Social Data Analytics. A separate Ph.D. program in Criminology is also housed within the department.

All students who intend to pursue doctoral work are expected to earn (or have earned) an M.A.
degree in their normal progress to the Ph.D.

Course work outside the department is encouraged. Areas of study related to sociology, such as rural sociology, geography, economics, business administration, statistics, cultural anthropology, political science, labor and employment relations, women’s studies, social thought, biobehavioral health, and human development and family studies are available at the University.

Special department-related research and training facilities include on-site computer laboratories and the Social Science Research Center, the Population Research Institute, the Center for Research on Crime and Justice, and the Pennsylvania Commission on Sentencing. Additional University facilities used by sociology faculty and graduate students include the Computation Center (containing information about the extensive databases provided through the Inter-University Consortium for Political and Social Research) and the Center on Healthy Aging.

Admission Requirements

Admission requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Applications will be accepted through January 1st for fall admission. Selection is based on undergraduate grades (and where applicable, record of previous graduate work); letters of recommendation; statement of purpose, areas of interest, and career goals; a sample of written work, such as a term paper; and Graduate Record Examinations (GRE) verbal, quantitative, and writing scores. International applicants are required to submit English proficiency test scores, unless they are from one of the countries listed as exempt in the Graduate Bulletin. English proficiency test scores must meet or exceed the minimum acceptable scores listed in the Bulletin. The best-qualified applicants will be accepted up to the number of spaces available. Students with limited prior training in sociology may be accepted, with the provision that they make up background deficiencies in the early part of their graduate program in consultation with and under the supervision of the Graduate Director. Acceptance into or continuation in the program is contingent on successful performance in these areas.

Degree Requirements

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

Masters of Arts Degree (M.A.) in Sociology

Required courses for the M.A. are designed to enhance students' knowledge of substantive specialty areas in sociology, social theory, sociological research methods, and statistics and include:

One seminar in classical or contemporary social theory, chosen from among the following:
Sociology 502 - Theories of Society I
Sociology 503 - Theories of Society II
Three required methods and statistics courses and associated computer labs:
Sociology 513 - Sociological Research Methods
Sociology 574 - Statistical Methods for Social Research
Sociology 575 - Statistical Models for Non-experimental Research
Sociology 596 – Statistical Laboratory (to accompany SOC 574 and SOC 575)

Sociology 500 – Introduction to Graduate School in Sociology (1 credit)
Sociology 600 – MA Thesis (6 credits)

Students are also required to complete six elective graduate seminars, one of which must be a 500-level substantive seminar in Criminology, and two of which may be outside the department.

Sociology department seminars in research methods and statistics assume a background gained through some combination of undergraduate course work and individual study. Students who are not confident of their basic statistical training may find it useful to pursue foundational training at Penn State or elsewhere prior to enrollment in SOC 574.

For the M.A. in Sociology at Penn State, 38 course credits are required, no more than three of which may be for Individual Studies (SOC 596). The Graduate School specifies that students holding twenty-hour-per-week assistantships must carry 9 to 12 course credits per semester. Students receiving Fellowships are expected to enroll for 12 course credits per semester. A minimum grade-point average of 3.00 for work done at Penn State is required for graduation.

Students must either complete an M.A. thesis by the end of their second year in the program or enter the program with an M.A. degree.

**Doctoral Degree (Ph.D.) in Sociology**

**Candidacy Exam**
A candidacy examination is required of all students seeking the Ph.D. This evaluation by the departmental Graduate Committee is based on the student’s seminar papers, their proposed dissertation research and record of course performance, and faculty assessments of the student’s ability to complete a high-quality Ph.D. program. The candidacy occurs after the M.A. degree has been completed.

**The Doctoral Committee**
The candidate's Ph.D. studies are conducted under the supervision of a doctoral committee. The doctoral committee must comply with the [Graduate Council doctoral committee requirements](#). The committee must include faculty members having recognized expertise in the major and minor areas of specialization selected by the student, as well as expertise in general social theory, research methods, and statistics. One faculty member is designated chair of the doctoral committee; ordinarily this person also serves as general advisor and director of the dissertation. Students are strongly encouraged to choose a committee chair as early as possible. The student’s chair can be of great help in selecting other committee members, especially members outside of the sociology department.
Students must identify and convene their doctoral committee no later than one semester following their candidacy examination. The doctoral committee supervises the Ph.D. candidate's course of study, comprehensive examination, and dissertation. This includes approval of proposed course work to meet requirements for the major and minor areas of specialty.

All Ph.D. candidates must have completed all courses required for the M.A. degree in Sociology at Penn State, or their equivalent. These include: SOC 500 (Intro to Graduate Studies in Sociology); SOC 574 (Statistical Methods for Social Research); SOC 575 (Statistical Models for Non-experimental Research); SOC 513 (Sociological Research Methods); one seminar in social theory, chosen from SOC 502 (Theories of Society I) and SOC 503 (Theories of Society II). All Ph.D. candidates are also required to complete a one-credit Lab in Teaching Sociology (SOC 591). The lab in teaching sociology cannot serve to meet other Ph.D. requirements to be described subsequently, such as the requirement for a minimum number of seminars in Sociology.

**Major and Minor Areas of Specialization**
In addition to the specific requirements common to all Ph.D. candidates, students must complete courses in which they acquire competence in a major and a minor area of specialization. The major and minor should be chosen by the student in consultation with the doctoral committee. A record of the chosen areas must be filed with and approved by the graduate officer. The major area may be selected from the department’s primary Ph.D. program strengths: 1) demography (including health and immigration), 2) family, life course, and aging, 3) criminology, 4) stratification and inequality, 5) sociology of education, 6) urban and community studies, and 7) quantitative methods. Alternatively, students may develop their own customized areas that have included in recent years (but are not restricted to): race and ethnicity, social theory, sociology of organizations, sociology of religion, and collective behavior and social movements. Each student, no matter their choice of specialty areas, in consultation with the doctoral committee develops a program of course work necessary for preparation of the major and minor areas.

At least 12 credits of course work are associated with the major area of specialization. Course work is subject to the following constraints: 1) at least three courses must be listed in the sociology department; 2) at least two courses must be in formal 500-level seminars; 3) no more than one course may be in Individual Studies (Sociology 596).

The minor area of specialization is developed in the same manner, in consultation with the doctoral committee and with the approval of the Graduate Officer and the graduate committee. Students are required to take at least 9 credits of course work in the area selected as their minor. Earlier-named specific course requirements, such as seminars in statistics, research methods, and theory, cannot be used to meet the nine-credit minimum for the minor area. The minor course requirements also are subject to the following constraints: 1) at least two courses must be in sociology; 2) at least one course must be in 500-level seminars. One course may be double-counted in the major and minor areas.

**Comprehensive Examination**
After completing all course work and before the period of intensive dissertation research begins, doctoral candidates must pass a comprehensive examination that includes written and oral
components. Written components will be administered in a candidate’s major and minor areas of concentration. Members of the doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination. The oral component of the comprehensive involves the defense of a dissertation prospectus.

**Dissertation and Dissertation Defense**

To earn the Ph.D. degree, doctoral students must also write a dissertation that contains original research and reflects their education in sociology. Upon completion of the doctoral dissertation, the candidate also must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.

The Department of Sociology has no formal foreign language or communication requirement. However, students are encouraged to pursue additional training in statistics, computer science, foreign language, technical writing, specialized methods, or specialized theory that will further dissertation and career plans.

**Dual-Title Doctoral Degree in Sociology and Demography**

A special dual-title M.A. program is offered in Sociology and Demography. Details can be obtained from the Sociology graduate officer or director of the graduate program in Demography. Information is also available at http://www.pop.psu.edu/demography.

**Admission Requirements**

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can be admitted to a dual-title degree program. Applicants interested in the dual-title degree program may note their interest in their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Demographic research. Students admitted to the Sociology program will be admitted to the dual-title program in Demography upon the recommendation of a Demography Program faculty member in Sociology. Student must apply and be admitted to the dual-title degree program in Demography prior to taking the candidacy exam.

**Degree Requirements**

**Course Work**

Dual-title M.A. students must complete four courses in demography, one in each of the following pedagogic categories: 1) Demography Survey Course (if a population survey course was not completed as an undergraduate), 2) Demographic Methods Course, 2) Seminar in Demographic Processes, and 4) Population Studies Seminar. Multiple courses are offered in each of these categories each year, and many of the courses can be taken within the sociology department and counted toward sociology degree requirements. Dual-title M.A. students must write a thesis on a topic that draws on research questions and literature from both sociology and demography.
Students pursuing the dual-title Ph.D. in Sociology and Demography select demography as their major area of specialization. However, dual-title students must complete a total of 24 course credits (12 credits, or 4 courses, at the M.A. plus 12 additional credits distributed among pedagogic categories) in demography. Some of these courses must be completed in disciplines outside the Department of Sociology. All demography courses taken within the sociology department can count toward both the sociology and demography degrees.

**Candidacy Committee and Exam**
The candidacy examination committee will be composed in accordance with rules of the Sociology Ph.D. and will include an evaluation of at least one graduate faculty member from the Demography Program. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

The dual-title degree will be guided by the Candidacy Exam procedure of the Sociology graduate program. The candidacy exam for the dual-title degree will occur as soon as possible after completion of the M.A. requirements. There will be a single candidacy examination to assess whether the student should be admitted into Ph.D. candidacy in both Sociology and Demography. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the candidacy examination may be delayed one semester beyond the normal period allowable.

**Doctoral Committee Composition**
The doctoral committee must conform to all requirements of the primary program and the Graduate Council. The doctoral committee of a Sociology and Demography dual-title doctoral degree student must include at least four members of the graduate faculty, two of whom must be members of the Demography graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the graduate faculty in Demography, one member of the committee representing Demography must be appointed as co-chair.

**Comprehensive Exam**
After completing all course work, doctoral candidates for the dual-title doctoral degree in Sociology and Demography must pass a comprehensive examination that includes written and oral components. Written components will be administered in a candidate’s major sociology area of concentration in Demography and the chosen minor area. The Demography representative(s) on the student’s doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination. The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Demographic content.

**Dissertation and Dissertation Defense**
Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Demography. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.
Dual-Title Doctoral Degree in Sociology and Social Data Analytics

Sociology doctoral students seeking to attain and be identified with an interdisciplinary array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with sociology, may apply to pursue a dual-title Ph.D. in Sociology and Social Data Analytics.

Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. The dual-title Ph.D. program provides additional training with the aim of providing scientists with the skills required to expand the field of social data analytics, creatively to answer important social scientific questions, and communicate effectively with both academic and nonacademic audiences.

Admission Requirements

Requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can apply for admission to the dual-title degree program. Applicants interested in the dual-title degree program may note their interest in the program on their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Social Data Analytics-related research.

To apply to the dual-title doctoral Ph.D. in Sociology and Social Data Analytics, a student must submit a letter of application and transcript, which will be reviewed by the Social Data Analytics Program. An applicant must have a minimum grade-point average of 3.0 (on a 4.0 point scale) to be considered for enrollment in the dual-title degree program. Students must apply for enrollment into the dual-title Ph.D. in Social Data Analytics prior to obtaining candidacy in Sociology.

Degree Requirements

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

To qualify for the dual-title degree, students must satisfy the requirements of the Ph.D. in Sociology. In addition, they must satisfy the requirements described below, as established by the Social Data Analytics Committee. Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department adviser and Social Data Analytics.
Course Work

The minimum course work requirements for the dual-title Ph.D. in Sociology and Social Data Analytics are as follows:

- Course work and other requirements of the Ph.D. in Sociology.
- SO DA 501 (3 credits)
- SO DA 502 (3 credits)
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:
  - (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
  - (Q) Quantification distribution. 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives. (A Sociology Ph.D. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)
  - (C) Computational / informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.
  - (S) Social distribution. 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated (S) on the list of approved electives. (A Sociology Ph.D. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)
  - Cross-departmental distribution.
    - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department. (A Sociology student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)
    - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
    - 6 or more credits in approved courses outside Sociology.
    - 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SO DA electives that also meet requirements of the primary program. In particular, the 12 elective credits can be met with as few as 6 credits of
appropriately chosen course work. Within this framework, final course selection is determined by the student in consultation with academic advisers from Sociology and Social Data Analytics. There is no formal maximum number of credits from the primary SOC degree that can be double-counted toward the SO DA degree. For those meeting the SO DA elective requirement with the minimum of 12 credits, the outside-program minimum effectively limits the number of primary degree SOC credits that count toward SO DA at 6. Doctoral committees may limit the number of credits taken for the SO DA degree that can count toward home degree requirements.

**Candidacy Committee and Exam**
The candidacy examination committee will be composed in accordance with rules of the Sociology Ph.D. and will include an evaluation of at least one graduate faculty member from the Social Data Analytics Program. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

The dual-title degree will be guided by the Candidacy Exam procedure of the Sociology graduate program. The candidacy exam for the dual-title degree will occur as soon as possible after completion of the M.A. requirements. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, with permission of the graduate officer, the candidacy examination of dual-title degree students may be delayed one semester beyond the normal period allowable. There will be a single candidacy examination to assess whether the student should be admitted into Ph.D. candidacy in both Sociology and Social Data Analytics.

**Doctoral Committee Composition**
The doctoral committee must conform to all requirements of the primary program and the Graduate Council. In accordance with Graduate Council policy, the doctoral committee of a Sociology and Social Data Analytics dual-title doctoral degree student must include at least one member of the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the graduate faculty in Social Data Analytics, the member of the committee representing Social Data Analytics must be appointed as co-chair.

**Comprehensive Exam**
After completing all course work, doctoral candidates for the dual-title doctoral degree in Sociology and Social Data Analytics must pass a comprehensive examination that includes written and oral components.

Written components will be administered in a candidate’s major sociology area of concentration and Social Data Analytics (acting as the minor area). The Social Data Analytics representative(s) on the student’s doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination.
The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Social Data Analytics content.

**Dissertation and Dissertation Defense**

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Social Data Analytics. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.

**Student Aid**

In addition to the fellowships, traineeships, graduate assistantships, and other forms of financial aid described in the [STUDENT AID](#) section of the *Graduate Bulletin*, teaching assistantships support many students admitted to the program. Research assistantships also are available to qualified students through individual faculty members’ grants and contracts. Students on graduate assistantships must adhere to the [course load limits set forth in the Graduate Bulletin](#). A number of federal agencies also offer fellowships for graduate study in sociology.

**Courses**

Graduate courses carry numbers from 500 to 599 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

[SOCIOLGY (SOC) course list](#)
V. Proposed Amendment to Graduate Bulletin for Sociology (SOC) (clean copy)

Sociology (SOC)

Program Home Page

JOHN ICELAND, Head of the Department of Sociology, and Crime, Law, and Justice
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Degrees Conferred:
M.A., Ph.D.
Dual-Title M.A. and Ph.D. in Sociology and Demography
Dual-Title Ph.D. in Sociology and Social Data Analytics

The Graduate Faculty

The Program

The graduate program in Sociology offers advanced education for students who intend to pursue academic careers in sociology or who aspire to nonacademic research positions.

The M.A. and Ph.D. programs provide training in general social theory, research methodology, statistics, and a number of traditional and developing substantive specialties. In consultation with faculty advisers, students select two specialties that are among the department’s strengths, such as demography (including health and immigration); family, life course, and aging; criminology; stratification and inequality; sociology of education; urban and community studies; or quantitative methods.

Alternate specialty areas not listed above may be selected as the major or the minor, with the approval of the Graduate Director and the student’s doctoral committee. Students may elect to pursue a dual-title M.A. and Ph.D. in Sociology and Demography, or a dual-title Ph.D. in Sociology and Social Data Analytics. A separate Ph.D. program in Criminology is also housed within the department.

All students who intend to pursue doctoral work are expected to earn (or have earned) an M.A. degree in their normal progress to the Ph.D.

Course work outside the department is encouraged. Areas of study related to sociology, such as rural sociology, geography, economics, business administration, statistics, cultural anthropology, political science, labor and employment relations, women’s studies, social thought, biobehavioral health, and human development and family studies are available at the University.

Special department-related research and training facilities include on-site computer laboratories and the Social Science Research Center, the Population Research Institute, the Center for
Research on Crime and Justice, and the Pennsylvania Commission on Sentencing. Additional University facilities used by sociology faculty and graduate students include the Computation Center (containing information about the extensive databases provided through the Inter-University Consortium for Political and Social Research) and the Center on Healthy Aging.

**Admission Requirements**

Admission requirements listed here are in addition to requirements stated in the [GENERAL INFORMATION](#) section of the *Graduate Bulletin*.

Applications will be accepted through January 1st for fall admission the following year. Selection is based on undergraduate grades (and where applicable, record of previous graduate work); letters of recommendation; statement of purpose, areas of interest, and career goals; a sample of written work, such as a term paper; and Graduate Record Examinations (GRE) verbal, quantitative, and writing scores. International applicants are required to submit English proficiency test scores, unless they are from one of the countries listed as exempt in the [Graduate Bulletin](#). English proficiency test scores must meet or exceed the [minimum acceptable scores](#) listed in the [Graduate Bulletin](#). The best-qualified applicants will be accepted up to the number of spaces available. Students with limited prior training in sociology may be accepted, with the provision that they make up background deficiencies in the early part of their graduate program in consultation with and under the supervision of the Graduate Director. Acceptance into or continuation in the program is contingent on successful performance in these areas.

**Degree Requirements**

Requirements listed here are in addition to requirements stated in the [DEGREE REQUIREMENTS](#) section of the *Graduate Bulletin*.

**Masters of Arts Degree (M.A.) in Sociology**

**Course Work**

Required courses for the M.A. are designed to enhance students' knowledge of substantive specialty areas in sociology, social theory, sociological research methods, and statistics and include:

One seminar in classical or contemporary social theory, chosen from among the following:

- Sociology 502 - Theories of Society I
- Sociology 503 - Theories of Society II

Three required methods and statistics courses and associated computer labs:

- Sociology 513 - Sociological Research Methods
- Sociology 574 - Statistical Methods for Social Research
- Sociology 575 - Statistical Models for Non-experimental Research
- Sociology 596 – Statistical Laboratory (to accompany SOC 574 and SOC 575)

Sociology 500 – Introduction to Graduate School in Sociology (1 credit)
Sociology 600 – MA Thesis (6 credits)
Students are also required to complete six elective graduate seminars, one of which must be a 500-level substantive seminar in Criminology, and two of which may be outside the department.

Sociology department seminars in research methods and statistics assume a background gained through some combination of undergraduate course work and individual study. Students who are not confident of their basic statistical training may find it useful to pursue foundational training at Penn State or elsewhere prior to enrollment in SOC 574.

For the M.A. in Sociology at Penn State, 38 course credits are required, no more than three of which may be for Individual Studies (SOC 596). The Graduate School specifies that students holding twenty-hour-per-week assistantships must carry 9 to 12 course credits per semester. Students receiving Fellowships are expected to enroll for 12 course credits per semester. A minimum grade-point average of 3.00 for work done at Penn State is required for graduation.

Students must either complete an M.A. thesis by the end of their second year in the program or enter the program with an M.A. degree.

Doctoral Degree (Ph.D.) in Sociology

Candidacy Exam
A candidacy examination is required of all students seeking the Ph.D. This evaluation by the departmental Graduate Committee is based on the student’s seminar papers, their proposed dissertation research and record of course performance, and faculty assessments of the student’s ability to complete a high-quality Ph.D. program. The candidacy occurs after the M.A. degree has been completed.

The Doctoral Committee
The candidate's Ph.D. studies are conducted under the supervision of a doctoral committee. The doctoral committee must comply with the Graduate Council doctoral committee requirements. The committee must include faculty members having recognized expertise in the major and minor areas of specialization selected by the student, as well as expertise in general social theory, research methods, and statistics. One faculty member is designated chair of the doctoral committee; ordinarily this person also serves as general advisor and director of the dissertation. Students are strongly encouraged to choose a committee chair as early as possible. The student’s chair can be of great help in selecting other committee members, especially members outside of the sociology department.

Students must identify and convene their doctoral committee no later than one semester following their candidacy examination. The doctoral committee supervises the Ph.D. candidate's course of study, comprehensive examination, and dissertation. This includes approval of proposed course work to meet requirements for the major and minor areas of specialty.

All Ph.D. candidates must have completed all courses required for the M.A. degree in Sociology at Penn State, or their equivalent. These include: SOC 500 (Intro to Graduate Studies in Sociology); SOC 574 (Statistical Methods for Social Research); SOC 575 (Statistical Models for Non-experimental Research); SOC 513 (Sociological Research Methods); one seminar in social
theory, chosen from SOC 502 (Theories of Society I) or SOC 503 (Theories of Society II) All Ph.D. candidates are also required to complete a one-credit Lab in Teaching Sociology (SOC 591). The lab in teaching sociology cannot serve to meet other Ph.D. requirements to be described subsequently, such as the requirement for a minimum number of seminars in Sociology.

Major and Minor Areas of Specialization
In addition to the specific requirements common to all Ph.D. candidates, students must complete courses in which they acquire competence in a major and a minor area of specialization. The major and minor should be chosen by the student in consultation with the doctoral committee. A record of the chosen areas must be filed with and approved by the graduate officer. The major area may be selected from the department’s primary Ph.D. program strengths: 1) demography (including health and immigration), 2) family, life course, and aging, 3) criminology, 4) stratification and inequality, 5) sociology of education, 6) urban and community studies, and 7) quantitative methods. Alternatively, students may develop their own customized areas that have included in recent years (but are not restricted to): race and ethnicity, social theory, sociology of organizations, sociology of religion, and collective behavior and social movements. Each student, no matter their choice of specialty areas, in consultation with the doctoral committee develops a program of course work necessary for preparation of the major and minor areas.

At least 12 credits of course work are associated with the major area of specialization. Course work is subject to the following constraints: 1) at least three courses must be listed in the sociology department; 2) at least two courses must be in formal 500-level seminars; 3) no more than one course may be in Individual Studies (Sociology 596).

The minor area of specialization is developed in the same manner, in consultation with the doctoral committee and with the approval of the Graduate Officer and the graduate committee. Students are required to take at least 9 credits of course work in the area selected as their minor. Earlier-named specific course requirements, such as seminars in statistics, research methods, and theory, cannot be used to meet the nine-credit minimum for the minor area. The minor course requirements also are subject to the following constraints: 1) at least two courses must be in sociology; 2) at least one course must be in 500-level seminars. One course may be double-counted in the major and minor areas.

Comprehensive Examination
After completing all course work and before the period of intensive dissertation research begins, doctoral candidates must pass a comprehensive examination that includes written and oral components. Written components will be administered in a candidate’s major and minor areas of concentration. Members of the doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination. The oral component of the comprehensive involves the defense of a dissertation prospectus.

Dissertation and Dissertation Defense
To earn the Ph.D. degree, doctoral students must also write a dissertation that contains original research and reflects their education in sociology. Upon completion of the doctoral dissertation, the candidate also must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The dissertation must be accepted by the doctoral committee, the head of the graduate
program, and the Graduate School.

The Department of Sociology has no formal foreign language or communication requirement. However, students are encouraged to pursue additional training in statistics, computer science, foreign language, technical writing, specialized methods, or specialized theory that will further dissertation and career plans.

**Dual-Title Doctoral Degree in Sociology and Demography**

A special dual-title M.A. program is offered in Sociology and Demography. Details can be obtained from the Sociology graduate officer or director of the graduate program in Demography. Information is also available at http://www.pop.psu.edu/demography.

**Admission Requirements**

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can be admitted to a dual-title degree program. Applicants interested in the dual-title degree program may note their interest in their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Demographic research. Students admitted to the Sociology program will be admitted to the dual-title program in Demography upon the recommendation of a Demography Program faculty member in Sociology. Students must apply and be admitted to the dual-title degree program in Demography prior to taking the candidacy exam.

**Degree Requirements**

**Course Work**

Dual-title M.A. students must complete four courses in demography, one in each of the following pedagogic categories: 1) Demography Survey Course (if a population survey course was not completed as an undergraduate), 2) Demographic Methods Course, 2) Seminar in Demographic Processes, and 4) Population Studies Seminar. Multiple courses are offered in each of these categories each year, and many of the courses can be taken within the sociology department and counted toward sociology degree requirements. Dual-title M.A. students must write a thesis on a topic that draws on research questions and literature from both sociology and demography.

Students pursuing the dual-title Ph.D. in Sociology and Demography select demography as their major area of specialization. However, dual-title students must complete a total of 24 course credits (12 credits, or 4 courses, at the M.A. plus 12 additional credits distributed among pedagogic categories) in demography. Some of these courses must be completed in disciplines outside the Department of Sociology. All demography courses taken within the sociology department can count toward both the sociology and demography degrees.
Candidacy Committee and Exam
The candidacy examination committee will be composed in accordance with rules of the Sociology Ph.D. and will include an evaluation of at least one graduate faculty member from the Demography Program. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

The dual-title degree will be guided by the Candidacy Exam procedure of the Sociology graduate program. The candidacy exam for the dual-title degree will occur as soon as possible after completion of the M.A. requirements. There will be a single candidacy examination to assess whether the student should be admitted into Ph.D. candidacy in both Sociology and Demography. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the candidacy examination may be delayed one semester beyond the normal period allowable.

Doctoral Committee Composition
The doctoral committee must conform to all requirements of the primary program and the Graduate Council. The doctoral committee of a Sociology and Demography dual-title doctoral degree student must include at least four members of the graduate faculty, two of whom must be members of the Demography graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the graduate faculty in Demography, one member of the committee representing Demography must be appointed as co-chair.

Comprehensive Exam
After completing all course work, doctoral candidates for the dual-title doctoral degree in Sociology and Demography must pass a comprehensive examination that includes written and oral components. Written components will be administered in a candidate’s major sociology area of concentration in Demography and the chosen minor area. The Demography representative(s) on the student’s doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination. The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Demographic content.

Dissertation and Dissertation Defense
Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Demography. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.

Dual-Title Doctoral Degree in Sociology and Social Data Analytics
Sociology doctoral students seeking to attain and be identified with an interdisciplinary array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with sociology, may apply to pursue a dual-title Ph.D. in Sociology and Social Data Analytics.
Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. The dual-title Ph.D. program provides additional training with the aim of providing scientists with the skills required to expand the field of social data analytics, creatively to answer important social scientific questions, and communicate effectively with both academic and nonacademic audiences.

Admission Requirements

Requirements listed here are in addition to requirements stated in the GENERAL INFORMATION section of the Graduate Bulletin.

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can apply for admission to the dual-title degree program. Applicants interested in the dual-title degree program may note their interest in the program on their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Social Data Analytics-related research.

To apply to the dual-title doctoral Ph.D. in Sociology and Social Data Analytics, a student must submit a letter of application and transcript, which will be reviewed by the Social Data Analytics Program. An applicant must have a minimum grade-point average of 3.0 (on a 4.0 point scale) to be considered for enrollment in the dual-title degree program. Students must apply for enrollment into the dual-title Ph.D. in Social Data Analytics prior to obtaining candidacy in Sociology.

Degree Requirements

Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

To qualify for the dual-title degree, students must satisfy the requirements of the Ph.D. in Sociology. In addition, they must satisfy the requirements described below, as established by the Social Data Analytics Committee. Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department adviser and Social Data Analytics.

Course Work
The minimum course work requirements for the dual-title Ph.D. in Sociology and Social Data Analytics are as follows:

- Course work and other requirements of the Ph.D. in Sociology.
- SO DA 501 (3 credits)
- SO DA 502 (3 credits)
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the
Social Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:

- **(A) Core analytics distribution.** 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.

- **(Q) Quantification distribution.** 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives. *(A Sociology Ph.D. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)*

- **(C) Computational / informational distribution.** 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.

- **(S) Social distribution.** 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated (S) on the list of approved electives. *(A Sociology Ph.D. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)*

- **Cross-departmental distribution.**
  - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department. *(A Sociology student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)*
  - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
  - 6 or more credits in approved courses outside Sociology.
  - 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SO DA electives that also meet requirements of the primary program. In particular, the 12 elective credits can be met with as few as 6 credits of appropriately chosen course work. Within this framework, final course selection is determined by the student in consultation with academic advisers from Sociology and Social Data Analytics. There is no formal maximum number of credits from the primary SOC degree that can be double-counted toward the SO DA degree. For those meeting the SO DA elective requirement with the minimum of 12 credits, the outside-program minimum effectively limits the number of primary degree SOC credits that count toward SO DA at 6. Doctoral committees may limit the number of credits taken for the SO DA degree that can count toward home degree requirements.
Candidacy Committee and Exam
The candidacy examination committee will be composed in accordance with rules of the Sociology Ph.D. and will include an evaluation of at least one graduate faculty member from the Social Data Analytics Program. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

The dual-title degree will be guided by the Candidacy Exam procedure of the Sociology graduate program. The candidacy exam for the dual-title degree will occur as soon as possible after completion of the M.A. requirements. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, with permission of the graduate officer, the candidacy examination of dual-title degree students may be delayed one semester beyond the normal period allowable. There will be a single candidacy examination to assess whether the student should be admitted into Ph.D. candidacy in both Sociology and Social Data Analytics.

Doctoral Committee Composition
The doctoral committee must conform to all requirements of the primary program and the Graduate Council. In accordance with Graduate Council policy, the doctoral committee of a Sociology and Social Data Analytics dual-title doctoral degree student must include at least one member of the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the graduate faculty in Social Data Analytics, the member of the committee representing Social Data Analytics must be appointed as co-chair.

Comprehensive Exam
After completing all course work, doctoral candidates for the dual-title doctoral degree in Sociology and Social Data Analytics must pass a comprehensive examination that includes written and oral components.

Written components will be administered in a candidate’s major sociology area of concentration and Social Data Analytics (acting as the minor area). The Social Data Analytics representative(s) on the student’s doctoral committee will develop questions for and participate in the evaluation of the comprehensive examination.

The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Social Data Analytics content.

Dissertation and Dissertation Defense
Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Social Data Analytics. The dissertation must be accepted by the
doctoral committee, the head of the graduate program, and the Graduate School.

**Student Aid**

In addition to the fellowships, traineeships, graduate assistantships, and other forms of financial aid described in the STUDENT AID section of the *Graduate Bulletin*, teaching assistantships support many students admitted to the program. Research assistantships also are available to qualified students through individual faculty members’ grants and contracts. Students on graduate assistantships must adhere to the course load limits set forth in the *Graduate Bulletin*. A number of federal agencies also offer fellowships for graduate study in sociology.

**Courses**

Graduate courses carry numbers from 500 to 599 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

**SOCIOMETRY (SOC) course list**
The Handbook already accurately describes how general requirements apply to dual-title students in the existing Demography program. Therefore, the only revision required is insertion of a new section entitled “Dual-title Doctoral Degree in Sociology and Social Data Analytics” after the section on the dual-title program in sociology and demography. The proposed new text, to be inserted beginning on page 10 is highlighted below:

**L. Dual-Title Doctoral Degree in Sociology and Social Data Analytics**

Sociology doctoral students interested in having a degree that reflects interdisciplinary training in an array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with sociology, may apply to pursue a dual-title Ph.D. in Sociology and Social Data Analytics.

Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. The dual-title Ph.D. program provides additional training with the aim of providing scientists with the skills required to expand the field of social data analytics, creatively answer important social scientific questions, and communicate effectively with both academic and nonacademic audiences.

Official application to and enrollment in the program is handled through the Social Data Analytics program.

Students enrolled in this dual-title Ph.D. choose Social Data Analytics as their minor field. Upon acceptance by the Social Data Analytics admissions committee, the student is also assigned an academic adviser from the Social Data Analytics graduate faculty. Students must satisfy course work requirements with 18 credits in Social Data Analytics related course work, 12 credits of which is generally over and above standard requirements for the Sociology Ph.D.

The specific course requirements are as follows:

- 6 credits in core interdisciplinary seminars: SO DA 501 and SO DA 502.
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social Data Analytics Committee. Collectively the elective credits must satisfy distribution requirements, as listed in the Graduate Degree Bulletin. A total of 6 approved elective credits meeting the (S) [Social] and (Q) [Quantification] minimum distributions are generally met by fulfillment of the Sociology Ph.D. requirements. As a result, the elective requirement is met through 6 or more credits in approved courses meeting the following requirements:
  - (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
(C) Computational / informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.

- 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
- 6 or more credits in approved courses outside Sociology.
- 3 or fewer credits in approved courses at the 400-level.

There is no formal maximum number of credits from the primary SOC degree that can be double-counted toward the SO DA degree. For those meeting the SO DA elective requirement with the minimum of 12 credits, the outside-program minimum effectively limits the number of primary degree SOC credits that count toward SO DA at 6. Adopting programs and advising committees may limit the number of credits taken for the SO DA degree that can count toward home degree requirements.

In accordance with procedures described in the *Graduate Bulletin* and elsewhere in this handbook, a representative of the Social Data Analytics graduate faculty will serve on the student’s candidacy committee and doctoral committee. The dissertation must be on a topic that reflects original research and expertise in both sociology and Social Data Analytics.

For more detailed information about the dual-title program, please contact the Social Data Analytics program.
II. Proposed Bulletin Listing

Social Data Analytics

Burt Monroe, In Charge
230 Pond Lab
814-865-9215
burtmonroe@psu.edu

Degrees Conferred

Students electing this degree program through participating programs earn a degree with a dual title at the Ph.D. level, i.e., in (graduate program name) and Social Data Analytics.

The following graduate programs offer a dual degree in Social Data Analytics: Ph.D. in Political Science and Social Data Analytics; Ph.D. in Sociology and Social Data Analytics; Ph.D. in Statistics and Social Data Analytics.

Graduate Faculty

The Program

The Social Data Analytics dual-title degree program is administered by the Social Data Analytics Committee, which is responsible for the management of the program. The committee maintains program definition, identifies faculty and courses appropriate to the program, and recommends policy and procedures for its operation to the Dean of the Graduate School. The program enables students from diverse graduate programs to attain and be identified with an interdisciplinary array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with a home discipline. Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. To pursue a dual-title degree under this program the student must apply to the Graduate School and register through one of the approved graduate programs.

Admission Requirements

Students must apply and be admitted to the graduate program in their home department and The Graduate School before they can apply for admission to the dual-title degree program. Applicants interested in the dual-title degree program may make their interest in the program known on their applications to the major programs and include remarks in their statement of purpose that address the ways in which their research and professional goals in their chosen home field reflect an expanded interest in Social Data Analytics.

1 As officially listed.
To be enrolled in the Dual Title Doctoral Degree Program in Social Data Analytics, a student must submit a letter of application and transcript, which will be reviewed by the Social Data Analytics Admissions Committee. An applicant must have a minimum grade point average of 3.0 (on a 4 point scale) to be considered for enrollment in the dual-title degree program. Students must apply for enrollment into the dual-title degree program in Social Data Analytics prior to obtaining candidacy in their home department.

General Graduate Council admissions requirements are stated in the GENERAL INFORMATION section of the Graduate Bulletin.

**Degree Requirements**
Requirements listed here are in addition to requirements stated in the DEGREE REQUIREMENTS section of the Graduate Bulletin.

To qualify for the dual-title degree, students must satisfy the requirements of their major doctoral program in which they are primarily enrolled. In addition, they must satisfy the requirements described below, as established by the Social Data Analytics Committee.

The minimum course work requirements for the dual-title Ph.D. degree in Social Data Analytics are as follows:

- Course work and other requirements of the primary program.
- SO DA 501 (3 credits)
- SO DA 502 (3 credits)
- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:
  - (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
  - (Q) Quantification distribution. 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives.
  - (C) Computational / informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.
  - (S) Social distribution. 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated (S) on the list of approved electives.
  - Cross-departmental distribution.
    - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department.
    - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
- 6 or more credits in approved courses outside the primary program.
- 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SoDA electives that also meet requirements of the primary program. Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department and Social Data Analytics.

The Social Data Analytics Program maintains a list of background and skills that it recommends students have in place by the time they begin the interdisciplinary coursework required to complete the Social Data Analytics degree.

**Candidacy Committee Composition**

The candidacy committee must conform to all requirements of the primary program and the Graduate Council. In accordance with Graduate Council, the candidacy committee must include at least one member of the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role.

**Candidacy Exam**

The dual-title degree will be guided by the Candidacy Exam procedure of the primary program and the Graduate Council. In accordance with the Graduate Council, there will be a single candidacy examination, assessing candidacy for both primary program and the dual-title program. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the candidacy examination may be delayed one semester beyond the normal period allowable.

**Doctoral Committee Composition**

The doctoral committee must conform to all requirements of the primary program and the Graduate Council. In accordance with Graduate Council requirements, the doctoral committee shall contain at least four members. At least one of the committee members must be a faculty member on the Social Data Analytics graduate faculty. Faculty members who hold appointments in both programs’ graduate faculty may serve in a combined role. If the committee chair does not serve in this combined role, Graduate Council rules dictate that the Social Data Analytics faculty member must be designated as co-chair of the committee. If the candidate has a minor, that field must be represented on the committee by a Minor Field Member.

At least one regular member of the doctoral committee must represent a field outside the candidate’s major field of study, the “Outside Field Member.” The dual-title committee member may serve as the Outside Field Member. Additionally, the primary appointment of at least one regular member must be in an administrative unit outside the unit of primary appointment for the dissertation adviser.
committee member is referred to as the “Outside Unit Member.” The ideal arrangement then, is for a member of the Social Data Analytics graduate faculty with primary appointment in the primary program to act as dissertation chair, and for a member of the Social Data Analytics graduate faculty with primary appointment outside the administrative unit of the primary program to act as both Outside Field Member and Outside Unit Member.

Comprehensive Exam
The dual-title degree will be guided by the Comprehensive Exam procedure of the primary program. After completion of required course work, doctoral candidates for the dual-title doctoral degree must pass a comprehensive examination. In programs where this includes evaluation of a written exam, the Social Data Analytics representative on the student's doctoral committee will participate in the writing and evaluation of the exam, in accordance with procedures maintained by the primary program. In programs where the comprehensive exam involves defense of a dissertation prospectus, the Social Data Analytics representative on the student's doctoral committee will participate in the evaluation of the prospectus, including ensuring the proposed dissertation has substantial Social Data Analytics content.

Dissertation and Dissertation Defense
Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in their home discipline and Social Data Analytics. The dissertation must be accepted by the doctoral committee, the head of the graduate program, and the Graduate School.

Social Data Analytics Doctoral Minor
Doctoral students may take a doctoral minor in Social Data Analytics. This is the appropriate option for doctoral students in programs that have not adopted the dual-title Ph.D. degree in Social Data Analytics, and for students otherwise pursuing an incompatible degree program, such as another dual-title.

As with all graduate minors, a student seeking a minor must have the approval of the student's major program of study, the Social Data Analytics program, and the Graduate School, and official requests to add a minor to a doctoral candidate's academic record must be submitted to Graduate Enrollment Services prior to establishing the doctoral committee and prior to scheduling the comprehensive examination.

The doctoral minor in Social Data Analytics requires at least 15 credits in approved courses, with at least 6 at the 500-level and, with the requirement for 12 (or more) elective credits reduced to 9 (or more) elective credits. Additional deviations from distribution minimums and maximums may be allowed, but must be approved by the Social Data Analytics program.
Graduate Council  
Program, Option, or Minor Proposal Form

Submit 1 original, signed Graduate Council proposal form and 2 hardcopies of the graduate program proposal document, with a copy of the signed proposal form attached to each proposal copy, to the Curriculum Coordinator, University Faculty Senate, 101 Kern Graduate Building, University Park. The proposals will be transmitted to the Office of the Dean of the Graduate School for entry into the Graduate Council curricular review process; for more information about the process, see the Overview of the Graduate Council Curricular Review Process.

The Program Proposal Procedures provide guidance for the development of a graduate program proposal. If you have questions regarding the preparation of a graduate program proposal or how to complete this Graduate Council proposal form, contact the Office of the Dean of the Graduate School.

College/School: College of Engineering
Department or Instructional Area: College of Engineering

New Graduate Program, Option, or Minor: □ Add

Designation of new graduate program:
Classification of Instructional Programs (CIP) Code: ______________________
Designation of new graduate option: ______________________________________
Designation of new graduate minor: ______________________________________

Indicate effective semester:
☐ First semester following approval
☐ Second semester following approval

Existing Graduate Program Option, or Minor: □ Change □ Drop

Current designation of graduate program: All graduate programs that offer the Master of Engineering (M.Eng.) degree
Current designation of graduate option: ______________________________________
Current designation of graduate minor: ______________________________________

New designation of existing graduate program (if changing):
New designation of existing graduate option (if changing):
New designation of existing graduate minor (if changing):

Brief description of the change (if not noted above): Change in the minimum requirements for the Master of Engineering (M.Eng.) degree

Indicate effective semester:
☐ First semester following approval
☐ Second semester following approval

Submitted by Graduate Program Head

__________________________  ____________________________  ______________
Printed name                     Signature                        Date:

Noted by College/School Representative to Graduate Council Subcommittee on New and Revised Programs and Courses:

Eric Donnell

__________________________  ____________________________  ______________
Printed name                     Signature                        Date: 1/19/16

Approved by College/School Dean/Chancellor (or Designee):

Peter Butler

__________________________  ____________________________  ______________
Printed name                     Signature                        Date: 1/18/2016
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<td></td>
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Date 12 January 2016

From: Peter J. Butler
Professor of Biomedical Engineering
Associate Dean for Education
College of Engineering

Bradley J. Sottile
Instructor of Computer Languages
Department of Computer Science and Engineering
School of Electrical Engineering and Computer Science
College of Engineering

To: Andris Freivalds, Chair
Graduate Council Committee on Programs and Courses

Re: Change to the Master of Engineering (M.Eng.) Additional Specific Requirements

As you know, each graduate degree title generally has additional specific requirements beyond the minimum requirements Graduate Council sets for a graduate degree; the Master of Engineering (M.Eng.) degree is no different. It has been a number of years since the M.Eng. “Additional Specific Requirements” were last reviewed. This curricular policy appears to have not been edited since the adoption of 800-level courses as professionally oriented graduate courses, and the M.Eng. curricular policy has not been updated as new campuses have been approved to offer the M.Eng. degree.

The College of Engineering has initiated a conversation among the various engineering disciplines inside and outside of the College about what the M.Eng. degree should look like in the future. Included in this re-evaluation of the degree title was the question as to what culminating experiences (“capstones”) would be appropriate, and what the role of 800-level courses in this professional graduate degree could be going forward.

Consequently, the College of Engineering has undertaken an initiative to update the degree title. The attached curricular policy proposal is the outcome of our conversations regarding the future of the M.Eng. degree.

We highly endorse this proposal, both as individuals and on behalf of the College of Engineering. The College of Engineering Faculty Council (“Engineering Faculty Council”) approved this proposal at its meeting on Tuesday, December 15, 2015. This
Andris Freivalds, Chair  
Graduate Council Committee on Programs and Courses  
12 January 2015  
Page 2 of 2

Proposal has been approved by every M.Eng. program in the University, and it has received cognate review from future potential M.Eng. stakeholders, including the Office of the Vice President for Commonwealth Campuses. We trust that the Graduate Council Committee on Programs and Courses will review this proposal promptly, and will find it favorable.

Thank you for your consideration. Should you have any questions, please do not hesitate to contact us.

cc: Regina Vasilatos-Younken  
Vice Provost for Graduate Education and Dean of the Graduate School

Michael F. Verderame  
Senior Associate Dean of the Graduate School

Vicki L. Hewitt  
Director of Graduate Education Administration

Luis F. Ayala H., Chair  
Graduate Council Subcommittee on New and Revised Programs and Courses

Attachments (3):

1. M.Eng. Additional Specific Requirements curricular policy change proposal
2. Consultation summary for the M.Eng. curricular policy change proposal
3. Consultation from current M.Eng. programs, potential future M.Eng. stakeholders, and the Office of the Vice President for Commonwealth Campuses
CURRENT POLICY

M.Eng.--Additional Specific Requirements

The Master of Engineering degree programs provide training for advanced professional competence in several fields of engineering. This professional master's degree emphasizes practical application of knowledge for solving problems and should be distinguished carefully from the research-oriented programs that lead to the academic degree of Master of Science. A minimum of 30 graduate credits is required, of which 20 must be earned at the campus/center where the degree program is offered. At least 18 credits must be earned in graduate courses (500 series).

Culminating Experience--All M.Eng. Programs require a significant culminating or "capstone" experience. Each program has established the specific manner for meeting the requirement, which may take the form of a paper, writing portfolio, or other similar experience serving to demonstrate comprehensive and in-depth knowledge of the field of study. The nature and extent of this work and when it is to be undertaken within the program of study shall be determined by the major program and reported to the Office of Graduate Enrollment Services of the Graduate School.

Work for this degree is not required to be done specifically at the University Park campus. A complete program of study can be pursued at Penn State Harrisburg or Penn State Great Valley.
M.Eng.--Additional Specific Requirements

The Master of Engineering degree programs provide training for advanced professional competence in several fields of engineering. This professional master’s degree emphasizes practical application of knowledge for solving problems and should be distinguished carefully from the research-oriented programs that lead to the academic degree of Master of Science. A minimum of 30 graduate credits is required, of which 20 must be earned at the campus/center where the degree program is offered. At least 18 credits must be earned in 500- or 800-level courses; a minimum of 6 of these 18 credits must be earned in 500-level courses.

Culminating Experience--All M.Eng. Programs require a significant culminating or “capstone” experience. Each program has established the specific manner for meeting the requirement, which may take the form of a paper, project, internship, or other similar experience serving to demonstrate comprehensive and in-depth knowledge of the practice of the field of study. The nature and extent of this work and when it is to be undertaken within the program of study shall be determined by the major program.

Work for this degree is not required to be done specifically at the University Park campus. A complete program of study can be pursued at Penn State Harrisburg, Penn State Great Valley, Penn State Erie, or through the World Campus.
JUSTIFICATION

(1) This is a proposed policy change. Graduate Council mandates 18 credits of graduate course for a Master’s degree; in professional master’s degree programs, at least 6 of these 18 credits must be in 500-level coursework. Individual degrees and individual graduate programs are free to stipulate more stringent requirements so long as they are compliant with Council policy.

Under current policy, the M.Eng. degree mandates that all 18 credits of graduate coursework be completed in 500-level courses. Historically, this occurred because the current version of M.Eng. Additional Specific Requirements predated the creation of 800-level courses (professional graduate courses). Since 800-level courses were created with the intention of use in professional degree programs, it makes sense to permit more of them in the M.Eng. degree.

If an individual graduate program were to choose to change their current graduate-level coursework requirements, they would propose that through the Graduate Council curricular affairs process like any other program proposal. If an individual graduate program did not want to make a change their graduate-level course requirements, no action is required on the part of that graduate program.

(2) This deletion is a proposed policy change. A writing portfolio was likely included in current policy because the M.Eng. Additional Specific Requirements were modeled after the M.F.A. Additional Specific Requirements. A writing portfolio pedagogically makes more sense in fields that offer the M.F.A. than it does in the engineering fields. No M.Eng. program currently requires a writing portfolio.

(3) This is a proposed policy change to allow programs to designate their significant culminating experience (“capstone”) as a project. This policy change would not require graduate programs to designate a project as the culminating experience, but rather would permit it.

If an individual graduate program were to choose to designate their culminating experience as a project, they would propose that through the Graduate Council curricular affairs process like any other program proposal. If a graduate program did not want to make a change to their current culminating experience, no action is required on the part of that graduate program.

(4) This is a proposed policy change to allow programs to designate their significant culminating experience (“capstone”) as an internship. This policy change would not require graduate programs to designate an internship as the culminating experience, but rather would permit it.

If an individual graduate program were to choose to designate their culminating experience as an internship, they would propose that through the Graduate Council curricular affairs process like any other program proposal. If a graduate program did not want to make a change to their current culminating experience, no action is required on the part of that graduate program.

(5) This information currently existing in the Graduate Degree Programs Bulletin (that graduate programs offering the M.Eng. must report to Graduate Enrollment Services (GES) the nature and extent of the work) is incorrect. Graduate programs need to notify GES when an individual student has completed their required culminating experience. However, when a new program offering the M.Eng. is proposed the proposing unit does not notify GES; instead, the graduate program would submit it as part of a program proposal to the Graduate Council Joint Curricular Committee.
**PROPOSED POLICY**
(*“Clean” Copy for Placement in the Graduate Degree Programs Bulletin*)

**M.Eng.--Additional Specific Requirements**

The Master of Engineering degree programs provide training for advanced professional competence in several fields of engineering. This professional Master's degree emphasizes practical application of knowledge for solving problems and should be distinguished carefully from the research-oriented programs that lead to the academic degree of Master of Science. A minimum of 30 graduate credits is required, of which 20 must be earned at the campus/center where the degree program is offered. At least 18 credits must be earned in 500- or 800-level courses; a minimum of 6 of these 18 credits must be earned in 500-level courses.

**Culminating Experience**--All M.Eng. Programs require a significant culminating or "capstone" experience. Each program has established the specific manner for meeting the requirement, which may take the form of a paper, project, internship, or other similar experience serving to demonstrate comprehensive and in-depth knowledge of the practice of the field of study. The nature and extent of this work and when it is to be undertaken within the program of study shall be determined by the major program.

Work for this degree is not required to be done specifically at the University Park campus. A complete program of study can be pursued at Penn State Harrisburg, Penn State Great Valley, Penn State Erie, or through the World Campus.
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<td>Currently has M.Eng. degree; Joint memo with R. Gray</td>
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<td>KP</td>
<td>GV</td>
<td>Nemes</td>
<td>James</td>
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<td>12/21/15</td>
<td>On behalf of both GV and SYSEN</td>
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<td>Assoc Dean/Research &amp; Graduate Ed</td>
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<td>Butler</td>
<td>Peter</td>
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Updated: 15 January 2016
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Lori, Peter, and Brad,

I support this proposal. Not having 800 level courses specifically mentioned is an oversight, as this should already have been changed. The other proposed changes are fine. Good luck with the proposal.

Thanks,
Vic

--
Victor W. Sparrow
Director, Graduate Program in Acoustics
Professor of Acoustics
Penn State
201 Applied Science Bldg.
University Park, PA 16802
USA
+1 (814) 865-3162
+1 (814) 865-7595 FAX
vws1@psu.edu

From: Lori Long <laj5@engr.psu.edu>
Date: Thursday, November 19, 2015 3:52 PM
To: "Victor W. Sparrow" <vwsacs@engr.psu.edu>
Cc: PETER BUTLER <pjb28@psu.edu>, BRADLEY SOTTILE <bjs5332@psu.edu>
Subject: Consultation Request: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change

Dr. Sparrow:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori
Dear Ms. Long,

I have read the Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. I support all the proposed changes as I feel that they all would be beneficial to our M.Eng. program.

Sincerely,

Dr. Michael M. Micci

Director of Graduate Studies
Department of Aerospace Engineering

On Nov 19, 2015, at 3:53 PM, Lori Long <laj5@engr.psu.edu> wrote:

Dr. Micci:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori

---
Lori J. Long
Graduate Programs Coordinator
Office of the Associate Dean for Education
College of Engineering
The Pennsylvania State University
102 Hammond Building
University Park, PA 16802
laj5@psu.edu
Phone: 814-863-7014
Fax: 814-863-4749
---
Hi Lori,

I have no objections to the proposed changes.

Thanks,
Chimay

Dr. Anumba:

A friendly reminder that your comments and letter of support are needed for the Approval Plan for M Eng "Additional Specific: Requirements" Policy Change by tomorrow, December 3, 2015.

Thank you.

Dr. Anumba:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.
Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than **Thursday, December 3.**

Lori J. Long  
Graduate Programs Coordinator  
Office of the Associate Dean for Education  
College of Engineering  
The Pennsylvania State University  
102 Hammond Building  
University Park, PA 16802  
la5@psu.edu  
Phone: 814-863-7014  
Fax: 814-863-4749  
http://www.engr.psu.edu/  
http://www.engr.psu.edu/students/default.aspx
Brad,

I approve of your suggestions to the M.Eng. Policies.

Will Hancock

William O. Hancock, Ph.D.  
wohbio@engr.psu.edu  
Professor of Biomedical Engineering  
Chair of Intercollege Graduate Degree Program in Bioengineering  
229 Hallowell Building  
Office: (814) 863-0492  
Penn State University  
Lab: (814) 865-6216  
University Park, PA 16802  
Fax: (814) 863-0490  
http://www.bioe.psu.edu/faculty/hancock.html

From: Brad Sottile <bsottile@cse.psu.edu>  
Date: Saturday, December 19, 2015 at 2:05 PM  
To: William Hancock <wohbio@engr.psu.edu>  
Cc: Lori Long <laj5@engr.psu.edu>  
Subject: Revision to University-Wide M.Eng. Curricular Policy

Dear Will,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

While the Intercollege Graduate Degree Program in Bioengineering does not currently offer the M.Eng. degree, I recognize that as an engineering program it would not be unreasonable that the program could potentially consider offering the M.Eng. degree at some point in the future. Therefore, I am contacting you as chair of the program for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,

Brad

Bradley J. Sottile, M.S.  
Instructor of Computer Languages
From: William D. Burgos
To: bsottile@cse.psu.edu
Cc: Lori Long
Subject: RE: Consultation Request: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change
Date: Friday, December 11, 2015 9:56:22 AM

Brad

The Department of Civil and Environmental Engineering supports your proposals to allow 800-level courses to count towards the requirement of 18-credits of coursework at the 500-level and above, and to allow an internship to count as course credit. We offer two M.Eng. programs in our department and both of these proposals would help our students.

Regards

Bill

William D. Burgos
Professor of Environmental Engineering
Graduate Officer
Department of Civil and Environmental Engineering
The Pennsylvania State University
212 Sackett Bldg
University Park, PA 16802-1408
phone: (814)-863-0578
e-mail: wdb3@psu.edu
http://www.engr.psu.edu/ce/enve/burgos/new/

From: Brad Sottile [mailto:bsottile@cse.psu.edu]
Sent: Thursday, December 10, 2015 11:57 AM
To: William D. Burgos <WDB3@engr.psu.edu>
Cc: Lori Long <laj5@engr.psu.edu>
Subject: Re: Consultation Request: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change

Hi Bill,

I’m forwarding this email back to you, per our phone discussion.

Brad

Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
On 11/19/2015 3:53 PM, Lori Long wrote:

Dr. Burgos:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori

~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~

Lori J. Long
Graduate Programs Coordinator
Office of the Associate Dean for Education
College of Engineering
The Pennsylvania State University
102 Hammond Building
University Park, PA 16802
~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~

lal5@psu.edu
Phone: 814-863-7014
Fax: 814-863-4749
~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~

http://www.engr.psu.edu/
http://www.engr.psu.edu/students/default.aspx
~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~
Hi,

I support the proposal.

Best regards,

Mahmut Kandemir
CSE

Dr. Kendemir:

A friendly reminder that your comments and letter of support are needed for the Approval Plan for M Eng "Additional Specific: Requirements" Policy Change by tomorrow, December 3, 2015.

Thank you.

Lori

From: Lori Long
Sent: Thursday, November 19, 2015 3:59 PM
To: Mahmut Kendemir (mtk2@psu.edu) <mtk2@psu.edu>
Cc: Peter Butler (pjb28@psu.edu) <pjb28@psu.edu>; Brad Sottile (bjs5332@psu.edu) <bjs5332@psu.edu>
Subject: Consultation Request: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change
Importance: High

Dr. Kendemir:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.
Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than **Thursday, December 3**.

Thank you.

Lori

Lori J. Long  
Graduate Programs Coordinator  
Office of the Associate Dean for Education  
College of Engineering  
The Pennsylvania State University  
102 Hammond Building  
University Park, PA 16802  
laj5@psu.edu  
Phone: 814-863-7014  
Fax: 814-863-4749  
http://www.engr.psu.edu/  
http://www.engr.psu.edu/students/default.aspx
Memo

To: Ms. Lori Long, Graduate Programs Coordinator, Office of the Associate Dean for Education

From: Sedig Agili, Graduate Program Coordinator, M ENG EE, M ENG E SC, MS E ENG, MPS EM
       Robert Gray, Program Leader, M ENG EE Online

CC: Dr. Idowu, Dr. Aydin file

Date: December 7, 2015

Re: Policy Change

Ms. Long,

Thank you for sharing your proposal. At Penn State Harrisburg, we have been offering a residential M ENG EE for nearly 20 years. This program of study requires courses at the 400-500 level and none at the 800-level; it requires at least 18 credits at the 500 level and at least 24 credits must be taken through Penn State Harrisburg engineering graduate programs for a total of 33 credit hours. We solely use graduate faculty.

Teaching these 500-level courses with a research component has been beneficial to our students. For example, some students have enrolled in Ph.D. programs in electrical engineering or gained employment in companies involved in research and development.

As of January 2016, we will be offering joint (PSU-Harrisburg and UP-College of Engineering) online M ENG EE degree through the world campus. This program requires 30 credit hours to complete, of which 21 credits are at the 500-level and the remainder are at the 400-level. This program also uses graduate faculty from PSU-Harrisburg and UP-College of Engineering.

At this time, we feel we don’t need to offer 800-level courses. We wish you well towards your proposed policy change.

Thank you.
Lori,

SEDTAPP approves of the proposed changes.

Sven G. Bilén, Ph.D., P.E.
Head, School of Engineering Design, Technology, and Professional Programs
Professor of Engineering Design, Electrical Engineering, and Aerospace Engineering
Chief Technologist, Center for Space Research Programs
------------------ooO-(_)- / \---
The Pennsylvania State University
213B Hammond Building, University Park, PA 16802-1401
(814) 863-1526 FAX (814) 863-7229 sbilen@psu.edu
http://sedtapp.psu.edu/~sbilen http://csrp.psu.edu

Dr. Bilen:

A friendly reminder that your comments and letter of support are needed for the Approval Plan for M Eng "Additional Specific: Requirements" Policy Change by tomorrow, December 3, 2015.

Thank you.

Lori

From: Lori Long
Sent: Wednesday, December 2, 2015 7:39 AM
To: Sven Bilen <SBilen@engr.psu.edu>
Cc: BRADLEY SOTTILE <BJS5332@PSU.EDU>
Subject: REMINDER: Consultation Request: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change
Importance: High

Page 157
Dr. Bilen:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori

Lori J. Long
Graduate Programs Coordinator
Office of the Associate Dean for Education
College of Engineering
The Pennsylvania State University
102 Hammond Building
University Park, PA 16802

laj5@psu.edu
Phone: 814-863-7014
Fax: 814-863-4749

http://www.engr.psu.edu/
http://www.engr.psu.edu/students/default.aspx
November 22, 2015

Re: Plan for M Eng "Additional Specific: Requirements" Policy Change

To Brad Sotile,

I have reviewed your application materials for proposed policy changes to the Masters of Engineering (M. Eng.). The most significant change is the addition of professional 800-level courses to the curriculum. I see this as a positive modification that will strengthen future M. Eng. programs.

Sincerely,

Michael T. Lanagan
Professor of Engineering Science and Mechanics
Head of the ESM Graduate Program

cc. L. Long, P. Butler
Brad:
I have reviewed the changes to the University-wide Master of Engineering (M. Eng.) curricular policy. I agree with the proposed changes as they were presented in the proposal attached to the original email. The M. Eng. is a professional degree and allowing the addition of 800-level classes to the degree is reasonable and should be encouraged.

While I do not foresee our program making any changes other than the 800-level class issue, having the option of a capstone project or internship may make sense for some programs. I certainly would not see us adding an internship because those tend to be more of a shadowing opportunity or very focused in a specific area of engineering, rather than a demonstration of master’s level cumulative and specific knowledge, it may work well for other programs.

I appreciate the opportunity to review this. Please let me know if you have any questions.
Sincerely,

Shirley E. Clark, Ph.D., P.E., D. WRE
Associate Professor of Environmental Engineering
Graduate Program Coordinator, Environmental Engineering and Environmental Pollution Control
Penn State Harrisburg
777 W. Harrisburg Pike W-236F
Middletown, PA 17057
(717) 948-6127  FAX (717) 948-6580   Email: seclark@psu.edu
www.personal.psu.edu/sec16/
Dear Shirley,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

As the program coordinator for the M.Eng. in Environmental Engineering M.Eng. at CL, I am contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
School of Electrical Engineering and Computer Science
The Pennsylvania State University
111J IST Building
University Park, PA 16802
Phone: (814) 865-0165
Fax: (814) 865-3176
Email: bsottile@psu.edu
Lori,

I support the requested changes. One comment: “internship” should possibly be clarified, since there are many variants of this including CPT, some of which are associated with credit hours, and others that are not.

Thanks, David

David A. Nembhard, Ph.D.
Graduate Programs Coordinator and Associate Professor
The Harold and Inge Marcus Department of Industrial Engineering
The Pennsylvania State University
310 Leonhard Building
University Park, PA 16802
814-863-2447

On Dec 3, 2015, at 11:21 AM, Lori Long <laj5@ engr.psu.edu> wrote:

Dr. Nembhard:

A friendly reminder that your comments and letter of support are needed for the Approval Plan for M Eng "Additional Specific: Requirements" Policy Change are due today, December 3, 2015.

Thank you.

Lori
Dr. Nembhard:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori

Lori J. Long
Graduate Programs Coordinator
Office of the Associate Dean for Education
College of Engineering
The Pennsylvania State University
102 Hammond Building
University Park, PA 16802
laj5@psu.edu
Phone: 814-863-7014
Fax: 814-863-4749
http://www.engr.psu.edu/
http://www.engr.psu.edu/students/default.aspx

<MENG Policy Change_v5.pdf>
Dear Brad,

I concur with the proposed changes.

Best wishes,

Suzanne

--
Suzanne Mohney
Professor of Materials Science and Engineering
Professor of Electrical Engineering
Chair of the Intercollege Graduate Degree Program in Materials Science and Engineering
Penn State University
N-209 Millennium Science Complex
University Park, PA 16802
E-mail: mohney@psu.edu
Office: (814) 863-0744
http://www.esm.psu.edu/mohney/

On Dec 19, 2015, at 2:06 PM, Brad Sottile <bsottile@cse.psu.edu> wrote:

Dear Suzanne,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

While the Intercollege Graduate Degree Program in Materials Science and Engineering does not currently offer the M.Eng. degree, I recognize that as an engineering program it would not be unreasonable that the program could potentially consider offering the M.Eng. degree at some point in the future. Therefore, I am contacting you as chair of the program for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Brad

Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
School of Electrical Engineering and Computer Science
The Pennsylvania State University
111J IST Building
University Park, PA 16802
Phone: (814) 865-0165
Fax: (814) 865-3176
Email: bsottile@psu.edu
URL: http://www.sites.psu.edu/bsottile
<MEng Policy Change Proposal V5.pdf>
Dr. Motta:

As having a graduate program currently offering the M Eng degree, you are being contacted for consultation and a letter of support for the attached proposal: Approval Plan for M Eng "Additional Specific: Requirements" Policy Change. This proposal is being proposed to meet Graduate School requirements for M Eng/Professional Master degrees and is being sponsored by Brad Sottile (bjs5332@psu.edu); any questions regarding this proposal can be directed to Brad.

Please issue your comments and letter of support by replying to this email (keeping the subject line intact) by no later than Thursday, December 3.

Thank you.

Lori
Lori J. Long
Graduate Programs Coordinator
Office of the Associate Dean for Education
College of Engineering
The Pennsylvania State University
102 Hammond Building
University Park, PA 16802

laj5@psu.edu
Phone: 814-863-7014
Fax: 814-863-4749

http://www.engr.psu.edu/
http://www.engr.psu.edu/students/default.aspx
Dear Jim,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

I have separately contacted the M.Eng. in Systems Engineering to request their consultation on this proposal. Since, however, the potential exists that GV could someday decide to offer further M.Eng. programs, I am also contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Brad
Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
School of Electrical Engineering and Computer Science
The Pennsylvania State University
111J IST Building
University Park, PA 16802
Phone: (814) 865-0165
Fax: (814) 865-3176
Email: bsottile@psu.edu
URL: http://www.sites.psu.edu/bsottile
Hello Brad,
Thank you for the opportunity to review the changes that are proposed to the University-Wide M.Eng. Curricular Policy. I have shared the revisions with our School of Engineering at Behrend and we are pleased to support the proposed changes. They allow more flexibility for students in a professional setting and opportunities for future collaboration.

All the Best,
Dawn

_Dawn G. Blasko, Ph.D._
_Interim Associate Dean for Academic Affairs_  
_Associate Professor Psychology_  
_Penn State Erie. The Behrend College_  
_4701 College Drive_  
_Erie PA 16563-0101_  
_814.898.6160_

From: Brad Sottile [mailto:bsottile@cse.psu.edu]
Sent: Saturday, December 19, 2015 2:09 PM
To: Dawn Blasko <dgb6@psu.edu>
Cc: Lori Long <laj5@engr.psu.edu>
Subject: Revision to University-Wide M.Eng. Curricular Policy

Dear Dawn,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

BD no longer has a M.Eng. program since the M.Eng. in Manufacturing Systems Engineering was closed. Since, however, the potential exists that BD could someday decide to offer further M.Eng. programs, I am contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Brad

Bradley J. Sottile, M.S.
Hello Brad,
I have provided the response to the request for consultation in my email of January 8, 2015. Clearly, I am not comfortable with your reasoning and I am not able to offer support for the proposal.

Regards,

Peter Idowu, Ph.D., P.E.
Assistant Dean of Graduate Studies, Penn State Harrisburg
Professor of Electrical Engineering

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Hi Peter,

This email serves as a further inquiry if you have any further questions or concerns regarding the College of Engineering’s proposed revisions to the M.Eng. curricular policy.

Your consultation was requested by Tuesday, January 12, 2016. We have not, however, received your response to my answers to your questions. If we do not
receive a response by 5 p.m. tomorrow, Friday January 15, 2016, we will presume that you have no further concerns, and that you are comfortable with the proposal.

In the meantime, if you have further questions, please do not hesitate to let me know.

Brad

_____________________________________________________________________
Bradley J. Sottile, M.S.
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On Jan 12, 2016, at 2:04 PM, Brad Sottile <bsottile@cse.psu.edu> wrote:

Hi Peter (and Sedig),

I am following up to inquire if you have any further questions or concerns regarding this College of Engineering curricular initiative for the M.Eng. degree.

If you have any further questions, please do not hesitate to let me know. If you concur with the proposed changes to the M.Eng. curricular policy, it would be helpful for my consultation file if you would articulate that for the record.

Thank you again,
Brad
On Jan 9, 2016, at 12:37 AM, Brad Sottile
<bsottile@cse.psu.edu> wrote:

Hi Peter,

I did not see Sedig copied on your email, but since you said you had intended to add him I have added him to our distribution list. I am pleased to note that Peter Butler has been involved with this proposal since September, Aydin should be aware of the proposal from its December consideration in the College of Engineering’s Engineering Faculty Council (EFC), Jim was consulted on the proposal at the same time that I contacted you, and Sedig was consulted on the proposal in November.

After a discussion how the E ENG and E SC M.Eng. degrees contain solely 500-level courses, Sedig wrote in his (attached) consultation memo that:

"Teaching these 500-level courses with a research component has been beneficial to our students. For example, some students have enrolled in Ph.D. programs in electrical engineering or gained employment in companies involved in research and
development."

At the time, I did not think to follow-up on him with these two sentences. However, when I read the last two paragraphs of your email, I realized that perhaps a fuller discussion of the nature of the M.Eng. degree title would be helpful towards your review of this proposed curricular policy change.

I have attached my consultation spreadsheet. I have requested consultation from every current M.Eng. program; the list of currently active M.Eng. programs was provided by the Office of the Vice Provost for Graduate Education and Dean of the Graduate School. I have also requested consultation from everyone that I thought might reasonably look at the M.Eng. degree looking forward (BIO E, MATSE, BC, AG, and EM), I requested consultation from the ACGE member-level for colleges/campuses who offer graduate programming in engineering fields, and I requested consultation from the Office of the Vice President for Commonwealth Campuses. As you can see from the spreadsheet, there are currently 14 M.Eng. programs established across the University.

All 14 of those M.Eng. programs (including those not included on your list) currently prescribe a minimum of 18 credits of 500-level courses as part of their degree requirements. The reason for this consensus is — in fact — the current M.Eng. curricular policy, which states:

"A minimum of 30 graduate credits is required, of which 20 must be earned at the campus/center where the degree program is offered. At least 18 credits must be earned in graduate courses (500 series)."

Source: http://bulletins.psu.edu/graduate/degreerequirements/masters7

As I indicated in my initial email, it is likely that the M.Eng.
curricular policy likely predates the FA06 addition of 800-level courses as graduate courses. The intention, I presume, in the current policy language was to state that students could not use non-Graduate courses to count towards the graduate credit requirement. It is important to differentiate the appropriate course series because 700-level courses are used in the medical program in the College of Medicine, and 900-level courses are law courses used in both of our law schools. Prior to SP03, 800-level courses had a role in associate’s degree programs; cf. 

Graduate Council defines graduate courses as follows:

"A 500-level graduate course builds on advanced undergraduate and/or graduate courses, dealing with the frontiers of knowledge in the field. It is grounded in theories, hypotheses, and methodologies as expounded in current and/or primary literature sources. Synthesis of knowledge and independent analytical work by the student must be demonstrated. Significant and regular instructor-initiated interaction between students and the instructor(s) should occur in all 500-level courses, whether delivered in residence or at a distance, including online.

"An 800-level graduate course pertains to the most recently established knowledge and methodologies in a field of study, as applied to practice. It emphasizes analytical thinking and application of knowledge by the student in the context of providing pragmatic solutions for professionals. Significant and regular instructor-initiated interaction between students and the instructor(s) should occur in all 800-level courses, whether delivered in residence or at a distance, including online."

Source:
http://www.registrar.psu.edu/transcripts/trans_key_ug_gr_md.html
At Penn State, there are two types of graduate degrees: academic degrees, and professional degrees. In the master’s degree policy statement, Graduate Council stipulates:

"The Graduate School recognizes a difference in purpose, which is reflected in the requirements, for two types of advanced degrees: academic and professional. Of the master's degrees conferred at the University, the Master of Arts and Master of Science are academic in nature. The Master of Arts and the Master of Science degrees have similar requirements, the general major area determining which degree is conferred. Programs for both degrees are strongly oriented towards research and the creation of new knowledge.


Source:
http://bulletins.psu.edu/graduate/degreerequirements/
As you can see, the Doctor of Philosophy (Ph.D.), Master of Science (M.S.), and Master of Arts (M.A.) are research degrees; see
http://bulletins.psu.edu/graduate/degerequirements/ma
sters; emphasis is my own.

You stated:

“In many of these programs [the ones you noted] the M.Eng. degree is structured to be just as academic as the MS program with a difference only in the capstone requirement - MS Thesis or M.Eng. scholarly paper.”

In terms of the culminating experience for the M.S. and M.A., neither degree actually requires a thesis. Graduate Council policy states:

"If a student is required to write a thesis, at least 6 credits in thesis research (600 or 610) must be included in the program."

...  

"As noted above, candidates who are not required to write a thesis must present a suitable scholarly essay or paper. Its nature and extent shall be determined by the major program. The department head or program chair shall report to the Office of Graduate Enrollment Services that the student has met the approved requirement."

Source:
http://bulletins.psu.edu/graduate/degerequirements/mas
In other words, if a graduate program does not want to require a thesis for the M.S. or the M.A., the student must instead complete a scholarly essay or paper. As the M.S. and the M.A. are academic degrees, by extension, this scholarly essay or paper should generally be a research product. The M.Eng., as a professional degree, should have a culminating experience that is professionally oriented (e.g. this could be a scholarly paper on the application of current research to professional practice), though as you see (cf. http://bulletins.psu.edu/graduate/degreerequirements/masters) currently the culminating experience (“capstone”) for a M.Eng. program could take the form of a scholarly paper, writing portfolio, or similar culminating experience (though no program has opted to adopt the writing portfolio). The Office of the Vice Provost for Graduate Education and Dean of the Graduate School has interpreted this requirement as binding the program to specify one unified capstone for the entire program; in other words, some students are not permitted to complete a paper while other students complete a writing portfolio, since all students in the program need to have the same culminating experience.

Ultimately, you indicate that you view the M.Eng. as a research degree, largely differentiated from the M.S. by virtue of the type of culminating experience. As you can see, however, both the M.S. and the M.Eng. can result in a scholarly paper; the key difference between the degrees is the orientation of the degree (academic vs. professional).

As you likely know, the Middle States Commission on Higher Education (MSCHE) has indicated that the University is deficient in its assessment of student learning. We were visited by the evaluation team this past spring as part of our continued institutional accreditation processes. In the team’s resulting report, the team noted:

“Th e has been identified with identified in need of additional

Page 178
"The last decennial review identified shortcomings with regard to student learning outcomes assessment, which required an interim response by the institution. Nonetheless, the team finds that the institution still has more work to do in this area. The team recognizes that the challenging period the institution has been through and the recent changes in institutional leadership are understandable reasons why the learning outcomes assessment process has not been fully implemented for all programs. With new leadership now in place, the Team recommends that, building on the considerable progress and accomplishments that have been made by the ACUE Assessment Coordinating Committee, Penn State place a very high and urgent priority on bringing all programs into full compliance with the MSCHE Standard for learning outcomes assessment. Simply put, Penn State must articulate statements and means of assessment for expected student learning outcomes for all programs and at all levels, undergraduate and graduate, certificate and non-credit programs."


The University has undertaken a renewed focus on assessment, including in areas where assessment has been underutilized in the past (e.g. graduate education and non-credit programs). The Vice Provost for Graduate Education and Dean of the Graduate School has charged a special committee to examine how this will affect graduate programs, though ultimately every graduate course and every graduate program will need to come into compliance with the Middle States mandate. Compliance with the mandate will need to be verified by the University; in the interim, the University must issue a status report to Middle States no later than 1 April 2017 specifying how we as an institution have made progress towards that mandate. Given your view and Sedig’s view of the M.Eng. degree, I would be curious as to
how Harrisburg will be able assess a student’s development as a professional engineer if the orientation of your current M.Eng. programs is, in fact, actually academically oriented.

In your last paragraph, you indicated that you believed that the M.P.S. might be the more appropriate name for the end result of the changes I am proposing. There is a common misconception throughout the University that master’s degrees that contain 800-level courses must be titled as Master of Professional Studies (M.P.S.). As a member of the Graduate Council Committee on Programs and Courses, I can tell you that the central curricular committee only requires programs to adopt the degree title M.P.S. if there is not already a nationally recognized name in use for the title of the degree. The degree title Master of Engineering (M.Eng.) is one such nationally recognized degree title, so it would therefore be inappropriate to title a professionally-oriented engineering master’s degree program as a M.P.S. To summarize, a professional master’s program would only be titled M.P.S. if there was not something better to call it, not based on the number of 800-level courses in the program.

A fair question would be to ask how I came up with the number of 6 as the minimum number of required 500-level credits for the M.Eng. degree. I took guidance from Graduate Council’s policy on master’s degrees, which states:

"For all master's degrees, a minimum of 30 credits is required. At least 18 credits at the 500-level or above (with at least 6 credits of 500-level in professional master's programs) must be included in the program and a significant culminating or "capstone" experience or other mechanism to demonstrate evidence of analytical ability and synthesis of material is required."

Source:
http://bulletins.psu.edu/graduate/degreerequirements/masters
In my proposal, I proposed to specify the minimum number of 500-level credits at the Graduate Council minimum of 6 credits; overall, however, all master’s degree must have a minimum of 18 graduate credits. The M.S. and the M.A. require all 18 of the credits to be in 500-level courses; for a professional degree like the M.Eng., as long as the minimum of 6 credits of 500-level courses is met, the total number of graduate courses (i.e. 500-level and 800-level courses) must together total at least 18 credits. Ultimately, a graduate program has discretion to prescribe a higher number of 500-level credits than the degree title-wide minimum. In fact, if a program wants to adopt a different number than what is currently approved, they will have to submit a program change proposal through the Graduate Council curricular affairs process to adopt the change.

In your consultations, unless I missed it, neither you or Sedig addressed the proposal to change the list of acceptable culminating experiences. Could I ask both of you to provide consultation on that?

If you have further questions, please do not hesitate to ask me. If, however, you are satisfied with my explanation, it would be helpful for my consultation file if you could note that. I am, of course, quite happy to continue iterating until I have answered all of your questions, should you have further questions prior to that point.

Thank you,
Brad

______________________________
Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
School of Electrical Engineering and Computer Science
The Pennsylvania State University
111J IST Building
University Park, PA 16802
Phone: (814) 865-0165
Dear Brad,

Thanks for the opportunity to offer comments on the changes you've proposed to the M.Eng program policy. I am copying Sedig Agili (Harrisburg), Aydin Kultegin (EE), Jim Nemes (Great Valley) and Peter Butler (Associate Dean) because of their close connection to the M.Eng programs.

The change you've proposed will drop the minimum number of 500-level coursework to 6 credits. This is consistent with requirements for Master of Professional Studies (MPS) programs such as the MPS-Renewable Energy and Sustainability Systems.

It is my observation that several of the Master of Engineering programs across Penn State, including those listed below (from Great Valley, UP and Harrisburg) all require a minimum of 18 credits of coursework at the 500-level, with a scholarly paper capstone -

- Master of Engineering in Systems Engineering (Great Valley)
- Master of Engineering in Nuclear Engineering (UP)
- Master of Engineering in Electrical...
Engineering (Harrisburg and UP)
   Master of Engineering in Engineering
Science (Harrisburg)
   Master of Engineering in Environmental Engineering (Harrisburg)
   Master of Engineering (M.Eng.) in Architectural Engineering (UP)
   Master of Engineering in Civil and Environmental Engineering (UP)
   Master of Engineering (M.Eng.) in Acoustics (UP)
   etc.

In many of these programs the M.Eng. degree is structured to be just as academic as the MS program with a difference only in the capstone requirement - MS Thesis or M.Eng. scholarly paper. Relaxing requirements for the M.Eng. program by reducing the number of 500-level courses will make it look very much like the MPS program which is designed for a different purpose. This will change the traditional meaning of the degree at Penn State and could be cause for confusion for current and prospective students.

It is my view that the MPS degree title may be more appropriate for the degree program(s) that seek to use a larger set of 800-level professionally oriented coursework to meet master's program requirements.

Regards,
Peter

Peter Idowu, Ph.D., P.E.
Assistant Dean of Graduate Studies, Penn State Harrisburg
Professor of Electrical Engineering

Penn State Harrisburg
C-114 Olmsted Building
From: "Brad Sottile" <bsottile@cse.psu.edu>
To: "Dr P. Idowu" <idowu@psu.edu>
Cc: "Lori Long" <laj5@engr.psu.edu>
Sent: Saturday, December 19, 2015 2:07:39 PM
Subject: Revision to University-Wide M.Eng. Curricular Policy

Dear Peter,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences ("capstones") for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

I have separately contacted the M.Eng. programs at CL to request their consultation on this proposal. Since, however, the potential exists that CL could someday decide to offer further M.Eng. programs, I am also contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12.
comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

__________________________________________
Bradley J. Sottile, M.S.
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Peter,
This all proceeds my time at Penn State but my interpretation has always been that the M.Eng. was a professional degree similar to the MPS rather than a research degree, i.e. The MS. As you know, the MS has to have a scholarly paper as part of the capstone but it need not be a thesis. If we propose, as you suggest, the MPS for professionally oriented engineering programs that will result in three different engineering degree types. EE, for example, could easily have an MS, an M.Eng. and an MPS which would certainly result in confusion.

If you envision the M.Eng. to be a research degree I would suggest we use M.S. And then have thesis or non-thesis options and maintain the M.Eng. for more professionally oriented degrees.

In any event, it is good we're sorting this out.

Jim

Sent from my iPad

On Jan 8, 2016, at 4:32 PM, PETER IDOWU <pbi1@psu.edu> wrote:

Dear Brad,
Thanks for the opportunity to offer comments on the changes you've proposed to the M.Eng program policy. I am copying Sedig Agili (Harrisburg), Aydin Kultegin (EE), Jim Nemes (Great Valley) and Peter Butler (Associate Dean) because of their close connection to the M.Eng. programs.

The change you've proposed will drop the minimum number of 500-level coursework to 6 credits. This is consistent with requirements for Master of Professional Studies (MPS) programs such as the MPS-Renewable Energy and Sustainability Systems.

It is my observation that several of the Master of Engineering programs across Penn State, including those listed below (from Great Valley, UP and Harrisburg) all require a minimum of 18 credits of coursework at the 500-level, with a scholarly paper capstone -

Master of Engineering in Systems Engineering (Great
Valley)  
    Master of Engineering in Nuclear Engineering (UP)  
    Master of Engineering in Electrical Engineering (Harrisburg and UP)  
    Master of Engineering in Engineering Science (Harrisburg)  
    Master of Engineering in Environmental Engineering (Harrisburg)  
    Master of Engineering (M.Eng.) in Architectural Engineering (UP)  
    Master of Engineering in Civil and Environmental Engineering (UP)  
    Master of Engineering (M.Eng.) in Acoustics (UP) etc.

In many of these programs the M.Eng. degree is structured to be just as academic as the MS program with a difference only in the capstone requirement - MS Thesis or M.Eng. scholarly paper. Relaxing requirements for the M.Eng. program by reducing the number of 500-level courses will make it look very much like the MPS program which is designed for a different purpose. This will change the traditional meaning of the degree at Penn State and could be cause for confusion for current and prospective students.

It is my view that the MPS degree title may be more appropriate for the degree program(s) that seek to use a larger set of 800-level professionally oriented coursework to meet master's program requirements.

Regards,
Peter

Peter Idowu, Ph.D., P.E.
Assistant Dean of Graduate Studies, Penn State Harrisburg
Professor of Electrical Engineering

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Dear Peter,

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I have separately contacted the M.Eng. programs at CL to request their consultation on this proposal. Since, however, the potential exists that CL could someday decide to offer further M.Eng. programs, I am also contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

Bradley J. Sottile, M.S.
Instructor of Computer Languages
Department of Computer Science and Engineering
Dear Brad,

I have reviewed the attached proposal to revise the University-wide Master of Engineering curricular policy and have discussed the policy with Dr. Paul Heinemann, Head of the Department of Agricultural and Biological Engineering. On behalf of the College of Agricultural Sciences, I support the proposal and recommend moving forward with the process.

Best regards,

Gary

Gary A. Thompson, Ph.D.
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Director, Pennsylvania Agricultural Experiment Station
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FAX: 814-863-7905
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http://agsci.psu.edu/research

Dear Gary,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

AG does not currently have any programs that offer the M.Eng. degree. Since, however, the potential exists that AG could someday decide to offer the M.Eng. degree, I am contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,

Brad
From: John Hellmann jrh3@psu.edu
Subject: Re: Revision to University-Wide M.Eng. Curricular Policy
Date: December 21, 2015 at 6:52 AM
To: Brad Sottile bsottile@cse.psu.edu
Cc: Lori Long laj5@engr.psu.edu

Brad,

In principle it seems logical to include the 800 level courses toward satisfying degree requirements. However, I was not engaged in any of the Council discussions regarding what could comprise the M.Eng. programs, and whether 800 level courses were discussed in that regard. So, I’m supportive of your request, but will defer to the judgement of the graduate council on the matter.

John

On 12/19/2015 2:13 PM, Brad Sottile wrote:

Dear John,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences (“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

EMS does not currently have any programs that offer the M.Eng. degree. Since, however, the potential exists that EMS could someday decide to offer the M.Eng. degree, I am contacting you for consultation and a letter of support for the attached proposal. (Since the graduate program in Materials Science and Engineering is organized as an intercollege graduate degree program, please note that I have contacted MATSE separately to request their consultation as well.)

I would be grateful if you could could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

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jrh3@psu.edu
Brad,

From the list you provided, it is evident that you have conducted extensive consultation throughout the University. On behalf of the 20 Commonwealth Campuses, I appreciate the efforts you have taken to share the proposal and seek feedback. Good luck on its implementation!

David

Brad

Brad Sottile, M.S.
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On 1/7/2016 2:15 PM, DAVID CHRISTIANSEN wrote:

Brad,

Thank you for the reminder email. On behalf of the University College, I support your proposed revisions. I assume that you have run this by the associate deans at Harrisburg and Erie?

David

From: Brad Sottile [mailto:bsottile@cse.psu.edu]
Sent: Thursday, January 07, 2016 1:15 AM
To: David Christiansen <djc21@psu.edu>
Cc: Lori Long <laj5@engr.psu.edu>
Subject: Re: Revision to University-Wide M.Eng. Curricular Policy

Dear David,

This email serves as a friendly reminder that your consultation is requested for the attached proposed changes to the University-wide M.Eng. curricular policy. If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

Bradley J. Sottile, M.S.
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On Dec 19, 2015, at 2:14 PM, Brad Sottile <bsottile@cse.psu.edu> wrote:

Dear David,

I have proposed a revision to the University-wide Master of Engineering (M.Eng.) curricular policy. This proposal has been developed to correct a likely oversight in the current M.Eng. policy that professionally-oriented graduate courses (800-level courses) cannot currently be used towards satisfying the graduate course requirement for the professionally oriented M.Eng. degree. This curricular policy revision also seeks to adjust the list of acceptable culminating experiences
(“capstones”) for the degree title, and it also makes a few editorial changes to the M.Eng. curricular policy statement.

I have contacted GV, BD, and CL to request consultation on this proposal, both at the program level (for those programs that offer the M.Eng. level) and at the ACGE member level (in case of future proposals that could be affected by this curricular policy change). I have also contacted the intercollege graduate degree program (IGDP) in Bioengineering and the IGDP in Materials Science and Engineering, both of whom have participants at multiple campuses. Since the potential exists that this curricular policy change proposal could affect future integrated undergraduate/graduate (IUG) proposals coming out of the Commonwealth Campuses, I am contacting you for consultation and a letter of support for the attached proposal.

I would be grateful if you could issue your comments no later than Tuesday, January 12, 2016; it would be helpful if you could “reply all” and keep the subject line intact when responding.

If you have any questions, please do not hesitate to contact me.

Thank you,
Brad

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<MEng Policy Change Proposal V5.pdf>