I L L I N O I S
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Proposal to the Senate Educational Policy Committee

PROPOSAL TITLE:

Establish a transcriptable Graduate Concentration in "Advanced Analytics in Industrial & Enterprise Systems Engineering" in the Department of Industrial & Enterprise Systems Engineering, College of Engineering.

SPONSORS:

Rakesh Nagi, Department Head, Industrial & Enterprise Systems Engineering, 217-244-3848, nagi@illinois.edu

COLLEGE CONTACT:

William Buttlar, Associate Dean for Graduate, Professional, and Online Programs, College of Engineering, 217-333-5966, buttlar@illinois.edu

BRIEF DESCRIPTION:

This proposal seeks the approval of a transcriptable Advanced Analytics in Industrial & Enterprise Systems Engineering Graduate Concentration to be offered through the Department of Industrial and Enterprise Systems Engineering. The proposed concentration requires students to earn a B or better in each concentration course and complete a minimum of 12 credit hours in topics of advanced analytics (see Appendix A for specific requirement and course options).   The 12 hours may be used toward the major degree requirements.

This proposal seeks to establish this new transcriptable concentration, which will be available to graduate students in the MS Industrial Engineering program (MSIE). It is anticipated that, in the near future, the department will propose to attach this concentration to other relevant disciplines inside and beyond the College of Engineering (a separate, future proposal will be submitted accordingly). This concentration will be fully compatible with traditional degree requirements in the MS Industrial Engineering Program.

JUSTIFICATION:

Ubiquitous computing, pervasive communication technologies and wireless networks, the proliferation of network enabled devices and instruments with multi-media capabilities,

and social networking paradigms and inexpensive global communication capabilities have enabled large amounts of data to be generated, gathered, archived and distributed by organizations every day. This data can provide important information about scientific and technological breakthroughs, customers, organizational performance, supply and demand infrastructures, and future trends. A new breed of graduates is required to be immersed in this data and convert them into useful information that can help shape the decisions companies and organizations make; these decisions influence also the strategic directions and policies. Most Fortune 500 companies are hiring professionals with these skills. However such professionals are in tremendous short supply.

The University of Illinois, with its highly ranked College of Engineering, cutting-edge research by innovative faculty, diverse highly ranked departments, fantastic facilities and leading-edge laboratories, and national resources such as the NCSA and its recent National Data Center (NDC) initiative, is very well poised to undertake programs to address some of the crying need for talent.

Advanced Analytics (also referred to Data Analytics or simply Analytics) is a relatively young, multidisciplinary field that applies engineering approaches and methods to the analysis and management of engineering and business processes which are data-oriented. Common problems involve collecting data, cleaning and analyzing data, building decision models based on data and making predictions and decisions. As examples, consider the following:

The Institute of Operations Research and Management Science Society (INFORMS) in an article on getting started with Analytics, titled "*NBN: Operations Research Saves Billions for the World's Largest Broadband Project,*" describes how the National Broadband Network (NBN) in Australia, using Operations Research and Analytics, saved an estimated $2.2B in avoided costs over the project's lifecycle and emphasizes how analytics consistently delivers significant value – strategic to tactical, top-line to bottom-line – to the organizations and executives who use it.

The Institute of Operations Research and Management Science Society (INFORMS) established the Analytics section in 2011 and renamed its Spring conference as the INFORMS Conference on Business Analytics and Operations Research; it attracted participants from many companies including IBM, Oracle, HP, Intel, Cisco, Best Buy, Deloitte Consulting, SAS, DELL, Walt Disney Parks and Resorts, McDonald's Corporation, UPS, Boeing, P&G, Wal-Mart, and Bank of America. It is noteworthy that at the INFORMS Conference on The Business of Big Data, in June 2014, the keynotes by experts from Teradata Corporation and Accenture addressed big data in action and emphasized the role of analytics.

 "Companies are increasingly turning to analytics to gain a competitive edge. As they do, they must resolve unique demands on their information technology, their structure, their processes, and their culture. Most critical, however, is the challenge posed by analytical talent, the people at all levels who help turn data into better decisions and better business

results." *Accenture, Counting on Analytical Talent, March 2010, Accenture Institute for High Performance.*

Independent Directors Council (IDC) survey and research conducted in March 2013 and published in December 2013 in a White Paper "Using Big Data and Analytics as the Ticket to Strategic Relevance," by Dan Vesset and Henry Morris [http://www.investbrite.com/content34986] states *"Many best practices hinge on the ability of IT (information technology) leaders to articulate and market their core competency and value proposition to other internal stakeholders. By better communicating the value of analytics and IT's role in realizing it, IT can help lines of business better assess the value of analytics. This helps sharpen the story of what analytics does for an organization and can help stimulate wider analytics deployment."*

McKinsey Global Institute's Report in June 2011 on "Big Data: The Next Frontier for Innovation, Competition and Productivity" states "We estimate that the supply in the United States of deep analytical talent in 2008 was around 150,000 positions." This total rises to about 300,000 with newer graduates and trends in course selections. However, in a big-data world, they expect demands for deep analytical talent could reach 440,000 to 490,000 positions in 2018, which implies a talent gap in this category alone of 140,000-190,000 positions (we understand these figures are 5-years old and could be different today). In short, the United States will need an additional supply of this class of talent of 50 to 60 percent." They say although this analysis was conducted in the United States, they believe that the shortage of deep analytical talent will be a global phenomenon. In addition to this, they also report that in the case of data-savvy managers and analysts in a big-data world, who need enough conceptual knowledge and quantitative skills to be able to frame and interpret analysis in an effective way, they estimate the shortfall by 2018 to be as high as 4 million positions with such skills.

BUDGETARY AND STAFF IMPLICATIONS:

1) Resources
   a. How does the unit intend to financially support this proposal?

      Industrial & Enterprise Systems Engineering faculty and staff have the capacity to support this concentration with the current faculty, authorized faculty hires, and staff. They will serve as instructors in the new approved courses, maintain the concentration records, process admissions, and coordinate with departments regarding awarding of this concentration.

   b. How will the unit create capacity or surplus to appropriately resource this program? If applicable, what functions or programs will the unit no longer support to create capacity?

      The department will use their current tuition agreement with the College of Engineering to financially support this concentration.

c. Will the unit need to seek campus or other external resources? If so, please provide a summary of the sources and an indication of the approved support.

No.

d. Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.

Please refer to existing MOU between the College of Engineering and the Department of Industrial & Enterprise Systems Engineering for the distribution of tuition funds (August 2014) in Appendix B. This will apply to tuition-generating enrollments in the proposed concentration for students enrolled in the MSIE program.

2) Resource Implications
a. Please address the impact on faculty resources including the changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc.

The Department of Industrial & Enterprise Systems Engineering currently has approved hiring proposals that will assist with the increased teaching load which will also be aided by a revised teaching policy in the department. The department expects enrollment in the new approved courses for this concentration to be 6-9 students with the remaining 31-34 students in the courses being our regular graduate students and other graduate students in the College of Engineering.

b. Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.

This will not impact course enrollment in other units.

c. Please address the impact on the University Library

Those admitted to this concentration will be current University of Illinois graduate students; therefore, there would be no additional impact beyond what is already accounted for in the typical graduate student population.

d. Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)

No significant increase in the graduate student population is expected (at least in the short to medium term) since those admitted to this concentration will be current University of Illinois graduate students; therefore, there would be no additional impact beyond what is already accounted for in the typical graduate student population.

DESIRED EFFECTIVE DATE: Upon Approval

STATEMENT FOR PROGRAMS OF STUDY CATALOG:

Industrial and Enterprise Systems Engineering

ise.illinois.edu
Head of Department: Rakesh Nagi
Associate Head for Graduate Studies: Ramavarapu S. Sreenivas
117 Transportation Building
104 South Mathews Avenue
Urbana, IL 61801
(217) 333-2731
E-mail: ge-grad@illinois.edu

Major: Industrial Engineering
Degrees Offered: M.S., Ph.D.

Concentrations: Advanced Analytics in Industrial & Enterprise Systems Engineering (available to MS only), Computational Science and Engineering (M.S. and Ph.D.)

Major: Systems and Entrepreneurial Engineering
Degrees Offered: M.S., Ph.D.

Joint Degree Program: Master of Science in Industrial Engineering or Systems and Entrepreneurial Engineering, Financial Engineering, and Master of Business Administration
Degrees Offered: M.S. and M.B.A.

Medical Scholars Program: Doctor of Philosophy (Ph.D.) in Industrial Engineering or Systems and Entrepreneurial Engineering and Doctor of Medicine (M.D.) through the Medical Scholars Program

Graduate Degree Programs

The Department of Industrial and Enterprise Systems Engineering offers graduate study leading to master's and doctoral degrees in Industrial Engineering (IE) and Systems and Entrepreneurial Engineering (SEE). The program offers an approach to industrial engineering and systems engineering, engineering design, and entrepreneurial engineering that crosses disciplinary lines. The IE program is based in advanced studies that focus on operations research, optimization, supply chain management, financial engineering, quality and reliability engineering and production management, with the aim to advance modeling, simulation, analysis and decision making for complex engineering and economic systems. The SEE program is founded on the premise of dual competency in both traditional engineering and in the business side of engineering. The SEE program offers flexibility by permitting the student to select from a menu of advanced courses and take a wide range of electives to meet individual career goals. Graduates of these

programs are prepared to enter academic and professional engineering positions in universities, industry, government, and private practice. Opportunity also exists for a student to complete a:

1. Computational Science and Engineering (CSE) Concentration (M.S. and Ph.D.)
2. Energy and Sustainability Engineering (EaSE) Certificate.
3. Advanced Analytics in Industrial & Enterprise Systems Engineering Concentration (M.S. students in I.E.)

The Medical Scholars Program permits highly qualified students to integrate the study of medicine with study for a graduate degree in a second discipline, including Industrial Engineering or Systems and Entrepreneurial Engineering.

The Department is a joint sponsor with the Department of Finance for the M.S. degree in Financial Engineering.

Admission

Applicants who have completed degree requirements in an accredited engineering program or its equivalent are eligible to apply for admission. A minimum grade point average of 3.25 (A = 4.00) for the last two years of undergraduate study is required. Scores on the Graduate Record Examination (GRE) general test are required of all applicants. Based upon the previous preparation of the student for either program, prerequisite courses may be specified by the advisor, but the credit may not be applied toward a degree.

All applicants whose native language is not English must submit a minimum TOEFL score of 103 (iBT), or 613 (PBT); or minimum International English Language Testing System (IELTS) academic exam scores of 7.0 overall and 6.0 in all subsections. Applicants may be exempt from the TOEFL if certain criteria are met. Full admission status is granted for those meeting the minimum requirements and having taken the TOEFL or IELTS since the scores required for admission to the Department of Industrial & Enterprise Systems Engineering are above the minimum scores demonstrating an acceptable level of English language proficiency.

Applicants to the joint M.B.A. degree program must meet the admissions standards for both programs and be accepted by both programs.

Students may apply to the Medical Scholars Program prior to beginning graduate school or while in the graduate program. Applicants to the Medical Scholars Program must meet the admissions standards for and be accepted into both Industrial and Enterprise Systems Engineering and the College of Medicine. The application to the Medical Scholars Program will also serve as the application to the Industrial and Enterprise Systems Engineering graduate program. Further information on this program is available by contacting the Medical Scholars Program (125 Medical Sciences Building, (217)-333-8146, mspo@illinois.edu).

Medical Scholars Program

Students in the Medical Scholars program must meet the specific requirements for both the medical and graduate degrees. On average, students take eight years to complete both degrees. The first year of the combined program is typically spent meeting requirements of the Industrial or Systems and Entrepreneurial Engineering graduate degree.

Faculty Research Interests

Faculty research by ISE faculty is pursued in the following fields:

- computer-aided design
- optimization
- design systems
- manufacturing systems
- nondestructive testing and evaluation
- system dynamics and simulation
- control
- robotics
- real-time decision making
- reliability
- entrepreneurial engineering
- operations research/management science
- biomechanics

Faculty Research by IE faculty is pursued in the following fields:
- operations research
- production engineering
- quality and reliability engineering
- supply chain and logistics
- transportation
- financial engineering
- business analytics.

Facilities and Resources

Members of the Department of Industrial & Enterprise Systems Engineering have access to a wide range of excellent research facilities. These laboratories support a wide range of activity and are described at the department's research laboratories Web site.

Financial Aid

Qualified students may compete for financial assistance in the form of teaching/research assistantships, fellowships, grants, and tuition waiver scholarships. Under certain conditions, fellowships may be augmented by part-time assistantships. All applicants, regardless of U.S. citizenship, whose native language is not English and who wish to be considered for teaching assistantships must demonstrate spoken English language proficiency by achieving a minimum score of 24 on the speaking subsection of the

TOEFL iBT or 8 on the speaking subsection of the IELTS. For students who are unable to take the iBT or IELTS, a minimum score of 4CP is required on the English Proficiency Interview (EPI), offered on campus. All new teaching assistants are required to participate in the Graduate Academy for College Teaching conducted prior to the start of the semester.

Master of Science in Industrial Engineering

Thesis Option

IE 599	Thesis Research (min-max applied toward the degree)	8
IE 590	Seminar (registration for 0 hours every term while in residence)	0
Elective courses – chosen in consultation with advisor (subject to Other Requirements and Conditions below)		24
Total Hours		32

Other Requirements and Conditions[1]

Other Requirements and Conditions may overlap
A minimum of 12 500-level credit hours applied toward the degree, 8 of which must be IE.
A maximum of 4 hours of IE 597 (or other approved independent study) may be applied toward the elective course work requirement.
Minimum GPA: 3.0

[1] *For additional details and requirements refer to the department's Graduate Programs Web site and the Graduate College Handbook.*

Non-Thesis Option

IE 590	Seminar (registration for 0 hours every term while in residence)	0
IE 597	Independent Study (4 hours)	4
Elective courses – chosen in consultation with advisor (subject to Other Requirements and Conditions below)		32
Total Hours		36

Other Requirements and Conditions[1]

Other Requirements and Conditions (may overlap):[1]
A minimum of 12 500-level credit hours applied toward the degree, 8 of which must be IE.
Departmental approval is required to pursue the non-thesis option, for students terminating their studies with the M.S. degree.
For students in the non-thesis option, 4 hours of IE 597 are required (4 hours maximum allowed towards the M.S. degree), because each student must show evidence of the ability to do independent research.
Minimum GPA: 3.0

[1] *For additional details and requirements refer to the department's Graduate Programs*

Concentration – Advanced Analytics in Industrial & Enterprise Systems Engineering

The Advanced Analytics in Industrial & Enterprise Systems Engineering Concentration prepares students to relate the application of engineering approaches and methods to the analysis and management of engineering and business processes which are data-oriented. Student will be able to provide companies and organizations with the ability to convert the massive amounts of data received into useful information that can help shape the decisions companies and organizations make. Students must be enrolled in the Industrial Engineering MS (both thesis and non-thesis) degree program.

This concentration requires students to earn a B or better in each concentration course and complete a minimum of 12 credit hours in topics of advanced analytics. The 12 hours may be used toward the major degree requirements. Students in the Advanced Analytics in Industrial & Enterprise Systems Engineering Concentration must complete 8 hours from the Advanced Analytics Core Course List and 4 hours from the Advanced Analytics Secondary Course List or may choose an additional 4 hours from the Core Course List. The graduate coordinator in the Department of Industrial & Enterprise Systems Engineering will monitor fulfillment of these requirements.
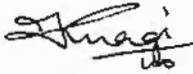
Current course options:

Advanced Analytics Core:

IE 528	Computing for Data Analytics	4 hours
IE 529	Stats of Big Data and Clustering	4 hours
IE 530	Optimization for Data Analytics	4 hours
IE 531	Algorithms for Data Analytics	4 hours
IE 532	Analysis of Network Data	4 hours
IE 533	Big Graphs and Social Networks	4 hours

Advanced Analytics Secondary:

IE 400	Design & Anlys of Experiments	4 hours
IE 410	Stochastic Processes & Applic	4 hours
IE 411	Optimization of Large Systems	4 hours
IE 510	Applied Nonlinear Programming	4 hours
IE 511	Integer Programming	4 hours
IE 521	Convex Optimization	4 hours

CLEARANCES: *(Clearances should include signatures and dates of approval. **These signatures must appear on a separate sheet.** If multiple departments or colleges are sponsoring the proposal, please add the appropriate signature lines below.)*

Signatures:

10-23-2015

_____   _____
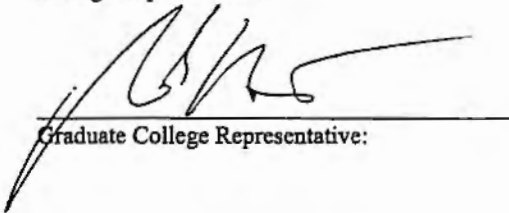Unit Representative: Date:

_____   _____
College Representative: Date: 1-25-16

_____   _____
Graduate College Representative: Date: 3-14-16

_____   _____
Council on Teacher Education Representative: Date:

Appendix A: Concentration Courses and Requirements

This Advanced Analytics in Industrial & Enterprise Systems Engineering Concentration requires students to earn a B or better in each concentration course and complete a minimum of 12 credit hours in topics of advanced analytics and big data. The 12 hours may be used toward the major degree requirements. Students in this concentration must complete 8 hours from the Advanced Analytics Core Course List and 4 hours from the Advanced Analytics Secondary Course List or may choose an additional 4 hours from the Core Course List. The current lists are below and will be maintained the Department of Industrial & Enterprise Systems Engineering's website.

Advanced Analytics Core:

IE 528	Computing for Data Analytics	4 hours
IE 529	Stats of Big Data and Clustering	4 hours
IE 530	Optimization for Data Analytics	4 hours
IE 531	Algorithms for Data Analytics	4 hours
IE 532	Analysis of Network Data	4 hours
IE 533	Big Graphs and Social Networks	4 hours

Advanced Analytics Secondary:

IE 410	Stochastic Processes & Applic	4 hours
IE 411	Optimization of Large Systems	3 or 4 hours
IE 510	Applied Nonlinear Programming	4 hours
IE 511	Integer Programming	4 hours
IE 521	Convex Optimization	4 hours

An Advanced Analytics in Industrial & Enterprise Systems Engineering Concentration website will be created on the department's current website to inform prospective students about the program requirements. The website will also serve as a resource for students pursuing the concentration.

Applicants will follow the established University procedures for indicating their interest in this concentration. The graduate coordinator in the Department of Industrial & Enterprise Systems Engineering will review their application and background and provide students with details on the concentrations' courses and requirements. Graduate students are responsible for ensuring that they have the appropriate background for any courses in which they enroll. The graduate coordinator will be available to discuss courses and prerequisites with students considering this concentration. At the conclusion of the student's degree, the graduate coordinator will review concentration course progress and certify that the requirements for this concentration have been met.

Appendix B: Funding Agreement

COLLEGE OF ENGINEERING (CoE)

AND THE
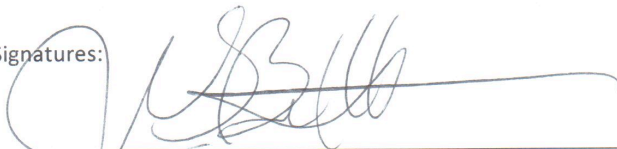
DEPARTMENT OF INDUSTRIAL SYSTEMS ENGINEERING (ISE)

For the distribution of tuition funds for tuition-generating enrollments in the
Master's degree programs (MSIE and MSEE) in ISE

This MOU applies to tuition paying master's students in the MSIE and MSEE programs in the ISE
Department and establishes a formula for the transfer of tuition funds between the CoE and ISE. This is
a new agreement, which follows the CoE Guidance Document for Professional Master's Program Tuition
Sharing ratified in July 2014. This agreement is not applicable to online programs or enrollments.

   -To help ISE grow its MSIE and MSEE programs, the College of Engineering will retain 20% and
   will return 80% of the growth in tuition to ISE beyond the agreed baseline of $12,448.

Using the Campus Budget Office's report on net tuition received, tuition as non-recurring funds will be
distributed to ISE at the end of each fiscal year. This agreement is effective August 16th, 2014 and valid
through August 15, 2017.

Signatures:

_____   _Feb. 4, 2014_
by Bill Buttlar   Date
Associate Dean of Graduate, Professional & Online Programs
College of Engineering

_____   _Feb 4, 2014_
by Rakesh Nagi   Date
Head, Department of Industrial Systesms Engineering

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Provost and Vice Chancellor
for Academic Affairs

Swanlund Administration Building
601 East John Street
Champaign, IL 61820

March 15, 2016

Bettina Francis, Chair
Senate Committee on Educational Policy
Office of the Senate
228 English Building, MC-461

Dear Professor Francis:

Enclosed is a copy of a proposal from the College of Engineering and the Graduate College to establish a graduate concentration in Advanced Analytics in the Department of Industrial & Enterprise Systems Engineering.

Sincerely,

Kathryn A. Martensen
Assistant Provost

Enclosures

c: W. Buttler
    R. McElroy
    R. Nagi
    J. Hart
    A. McKinney
    A. Edwards

Graduate College

204 Coble Hall
801 South Wright Street
Champaign, IL 61820-6210

Executive Committee

2015-2016 Members

Wojtek Chodzko-Zajko
Dean & Chair
Graduate College

Members

Abbas Aminmansour
Architecture

John D'Angelo
Mathematics

Nicki Engeseth
Food Science & Human
Nutrition

Susan Fowler
Special Education

Rutilio Fratti
Biochemistry

Paul Hergenrother
Chemistry

Kevin Jackson
Accountancy

Samantha Knoll
Mechanical Science &
Engineering

John Lambros
Aerospace Engineering

Isabel Molina
Media and Cinema Studies &
Latina/Latino Studies

Kirsten Phelps
Library and Information
Science

Sandra Rodriguez-Zas
Animal Sciences

Mark Rood
Civil & Environmental
Engineering

Lisa Rosenthal
Art & Design

Angeliki Tzanetou
Classics

Michelle Wang
Statistics/Psychology/
Bioengineering

March 14, 2016

Kathy Martensen
Office of the Provost
207 Swanlund MC-304

Dear Kathy,

Enclosed please find the proposal titled: "Establish a Transcriptable Graduate Concentration in Advanced Analytics in the Department of Industrial & Enterprise Systems Engineering."

The proposal was received by the Graduate College on February 1, 2016. The proposal was forwarded for review at the February 18, 2016 Graduate College Executive Committee. The committee approved the proposal with minor revisions. Those revisions have been received and the proposed program has been found to meet campus requirements and guidelines for graduate education.

I send the proposal to you now for further review.

Sincerely,

John C. Hart
Executive Associate Dean
Graduate College

c: B. Buttlar
   R. Nagi
   A. McKinney

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

College of Engineering

Executive Committee
306 Engineering Hall, MC-266
1308 West Green Street
Urbana, IL 61801

January 25, 2016

Associate Dean John Hart
Graduate College
204 Coble Hall
MC-322

Via: Andreas Cangellaris, Engineering College

Dear Dean Hart:

The College of Engineering Executive Committee has reviewed and approved the following new course. We now submit for campus approval.

"Grad Concentration in Advanced Analytics"

Attached is a copy of the request

Sincerely yours,

Rohit Bhargava, Vice Chair
Executive Committee

Approval Recommended:

1-25-2016

Andreas Cangellaris, Dean   Date
College of Engineering

Bill Buttlar
Rhonda McElroy
Wen-mei Hwu

College of Engineering
Graduate, Professional & Online Programs
401 Engineering Hall, MC-266
1308 West Green Street
Urbana, IL 61801

December 22, 2015

Rohit Bhargava, Vice Chair
Executive Committee
College of Engineering

Dear Professor Bhargava:

My office has reviewed the subcommittee report for the transcriptable concentration in Advanced Analytics in the Department of Industrial & Enterprise Systems Engineering. The subcommittee is recommending approval of this concentration. We now submit it for final approval to the Executive Committee.

Sincerely,

William G. Buttlar
Associate Dean
Office of Graduate and Professional Programs

Senate Educational Policy Committee
Proposal Check Sheet

PROPOSAL TITLE (Same as on proposal): <u>Establish a transcriptable Graduate Concentration in</u>
<u>"Advanced Analytics in Industrial & Enterprise Systems Engineering" in the Department of</u>
<u>Industrial & Enterprise Systems Engineering, College of Engineering</u>

PROPOSAL TYPE (select all that apply below)**:**

A. ☒ Proposal for a NEW or REVISED degree program. Please consult the Programs of Study Catalog
for official titles of existing degree programs.

1. Degree program level:

   ☒ Graduate   ☐ Professional   ☐ Undergraduate

2. ☐ Proposal for a new **degree** (e.g. B.S., M.A. or Ph.D.):

   Degree name, "*e.g., Bachelor of Arts or Master of Science*": _____

3. ☒ Proposal for a new or revised **major, concentration, or minor**:

   ☐ New or ☐ Revised **Major** in (name of existing or proposed major): _____

   ☒ New or ☐ Revised **Concentration** in (name of existing or proposed concentration):
   <u>Advanced Analytics in the Department of Industrial & Enterprise Systems Engineering</u>

   ☐ New or ☐ Revised **Minor** in (name of existing or proposed minor): _____

4. ☐ Proposal to rename an existing major, concentration, or minor:

   ☐ Major   ☐ Concentration   ☐ Minor

   Current name: _____

   Proposed new name: _____

5. ☐ Proposal to terminate an existing degree, major, concentration, or minor:

   ☐ Degree   ☐ Major   ☐ Concentration   ☐ Minor

   Name of existing degree, major, or concentration: _____

6. ☐ Proposal involving a multi-institutional degree:

☐ New   ☐ Revision   ☐ Termination

Name of existing Illinois (UIUC) degree: _____

Name of non-Illinois partnering institution: _____

Location of non-Illinois partnering institution:

☐ State of Illinois   ☐ US State: _____   ☐ Foreign country: _____

B. ☐ Proposal to create a new academic unit (college, school, department, program or other academic
    unit):

    Name of proposed new unit: _____

C. ☐ Proposal to rename an existing academic unit (college, school, department, or other academic
    unit):

    Current name of unit: _____

    Proposed new name of unit: _____

D. ☐ Proposal to reorganize existing units (colleges, schools, departments, or program):

    1. ☐ Proposal to change the status of an existing and approved unit (e.g. change from a program to
        department)

        Name of current unit including status: _____

    2. ☐ Proposal to transfer an existing unit:

        Current unit's name and home: _____

        Proposed new home for the unit: _____

    3. ☐ Proposal to merge two or more existing units (e.g., merge department A with department B):

        Name and college of unit one to be merged: _____

        Name and college of unit two to be merged: _____

        Proposed name and college of new (merged) unit: _____

    4. ☐ Proposal to terminate an existing unit:

        Current unit's name and status: _____

E. ☐ **Other educational policy proposals** (e.g., academic calendar, grading policies, etc.)

    Nature of the proposal: _____

Revised 10/2012