TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Industrial Engineering

RE: Change to Undergraduate-Level Course IE 33000 Prerequisites

From: IE 33000 – Probability And Statistics In Engineering II
Term Offered: Fall, Spring, Summer; Lecture 3, Cr. 3

Prerequisites: ENGR 13100 or ENGR 14100 or (EPCS 11100 and EPCS 12100) or ENGR 12600 or ENGR 12100;
Description: Introduction to statistical inference and experimental design. Correlation, regression, single and multi-factor ANOVA, non-parametric methods. Applications to statistical quality control.

To: IE 33000 – Probability And Statistics In Engineering II
Term Offered: Fall, Spring, Summer; Lecture 3, Cr. 3

Prerequisites: ENGR 13100 or ENGR 14100 or ENGR 16100 or (EPCS 11100 and EPCS 12100) or ENGR 12600 or ENGR 12100;
Description: Introduction to statistical inference and experimental design. Correlation, regression, single and multi-factor ANOVA, non-parametric methods. Applications to statistical quality control.

Reasons: Recent changes in First Year Engineering honors coursework (i.e., ENGR 16100 and 16200) necessitate adding the corresponding first design course to the list of prerequisites.

Abhijit Deshmukh
Professor and Head
School of Industrial Engineering

4/24/18
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________________________________________
Abhijit Deshmukh
Professor and Head
School of Industrial Engineering
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT Industrial Engineering
EFFECTIVE SESSION Fall 2018

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

☐ 1. New course with supporting documents
☐ 2. Add existing course offered at another campus
☐ 3. Expiration of a course
☐ 4. Change in course number
☐ 5. Change in course title
☐ 6. Change in course credit/type
☐ 7. Change in course attributes (department head signature only)
☐ 8. Change in instructional hours
☐ 9. Change in course description
☐ 10. Change in course requisites
☐ 11. Change in semesters offered (department head signature only)
☐ 12. Transfer from one department to another

PROPOSED:

Subject Abbreviation
Course Number
Long Title Probability And Statistics In Engineering II
Short Title Prob & Stat In Engr II

EXISTING:

Subject Abbreviation IE
Course Number 33000

TERMS OFFERED

Check All That Apply:

☐ Fall ☒ Spring ☒ Summer

CAMPUS(ES) INVOLVED:

☐ Calumet ☐ Cont Ed ☐ N. Central
☐ Ft. Wayne ☐ Tech Statewide ☐ Indianapolis
☐ W. Lafayette

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 3.000
2. Variable Credit Range: Minimum Cr. Hrs.
   (Check One) To ☐ Or ☐ Maximum Cr. Hrs.
3. Equivalent Credit: Yes ☒ No ☐

COURSE ATTRIBUTES: Check All That Apply

1. Pass/Not Pass Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
4. Credit by Examination
5. Fees: ☐ Coop ☐ Lab ☐ Rate Request Include comment to explain fee

6. Registration Approval Type Department ☐ Instructor ☒
7. Variable Title ☐
8. Honors ☐
9. Full Time Privilege ☐
10. Off Campus Experience ☐

ScheduleType
Lecture
Recitation
Presentation
Laboratory
Lab Prep
Studio
Distance
Clinic
Experiential
Research
Ind. Study
Pract/Observ

Minutes Per Mtg 50
Meetings Per Week 3
Weeks Offered 15
% of Credit Allocated 100

Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

Introduction to statistical inference and experimental design. Correlation, regression, single and multi-factor ANOVA, non-parametric methods. Applications to statistical quality control.
ENGR 13100 or ENGR 14100 or ENGR 16100 or (EPCS 11100 and EPCS 12100) or ENGR 12600 or ENGR 12100;

*COURSE LEARNING OUTCOMES:

Be able to: use statistical software packages (e.g. Minitab, R) to perform statistical tests; compute and interpret statistical confidence, tolerance, and prediction intervals given engineering and scientific data; conduct and interpret parametric statistical tests (e.g. t- and F-tests, ANOVA) on engineering and scientific data; conduct and interpret non-parametric statistical tests on engineering and scientific data; conduct and interpret regression analysis on engineering and scientific data; determine the appropriate statistical test or procedure to use on engineering and scientific data; design basic factorial experiments; and conduct basic statistical process control analysis.

Calumet Department Head Date
Calumet School Dean Date

Fort Wayne Department Head Date
Fort Wayne School Dean Date

Indiana University Department Head Date
Indiana University School Dean Date

North Central Faculty Senate Chair Date
Vice Chancellor for Academic Affairs Date

West Lafayette Department Head Date
West Lafayette College/School Dean Date
West Lafayette Registrar Date

OFFICE OF THE REGISTRAR