IE 556 00 Job Design

Spring 2024: Distance Asynch arrange hours (3 credits)
(syllabus & schedule updated Wednesday, Nov. 15th, 2023)

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Teaching Assistant: TBA

Course description: Task analysis, personnel selection and training, job and organization
design, and criteria development and use. Human factors related to job design in order to
increase job satisfaction and productivity.

Required Texts: 1. Essentials of Business Research Methods, 4th Ed. Hair, Jr., et al. Routledge,
New York, 2019; 2. Quality Management for Organizational Excellence (Goetsch and Davis,
Two of the three books are available through Purdue Libraries. The 3rd is in Vital Source.

Students who may be interested in the course include: Engineering, Psychology,
Technology/Polytechnic, Engineering Education, Health & Human Sciences and Management.
Students should be at least at senior status, with interest in research. Graduate students will
gain preparation & experience that will support current or future thesis and dissertation efforts.

Application areas include: Computing applications, vehicle design, rail, truck and air
transportation, mining, manufacturing, healthcare.

Learning Objectives: To provide students with the foundations of the research process and
applications in human factors, human-computer interaction, operations management and
multivariate data analysis. Students should be able to identify and justify product and process
evaluations considering modern aspects of job design, work design and various computer-
based consumer products. Supplementary readings will have applications of engineering,
computer sciences, information sciences and psychological principles and methods to the
analysis and design of human work systems.

Grading: Participation (20%) through discussion boards, Presentations (20%) recorded and
uploaded to BrightSpace, Low Stakes Evaluations (online practice quizzes 20%), Mid-term
(20%), Final exam (20%). Presentations will be summary of chapter or brief article
summaries based on a List of 10 Ways to Evaluate New and Existing Research. A review
session and study guide will be provided in advance of the mid-term. 2 presentations: 1 will
be based on a book chapter and the second will be based on a research article. Presentations
will be 5-6 minutes. Late materials submitted after any announced due dates will have a
deduction of up to 10% per day up to a maximum of 40 percent. A final meeting is scheduled
in finals week to discuss project & report.

Supplementary reading: a list of articles will be provided. Those can be downloaded through
e-journals using Purdue ID & Password within Purdue Libraries. Those articles will be reviewed
in class in the context of a “List of 10 Ways to Analyze New and Existing Research”.

Course web site: We plan to use classroom management system available by subscription
at Tophat.com and Blackboard through myCourses login. https://mycourses.purdue.edu/
Two additional online systems for will support participation and homework:
Grades: Grading will take into account +/- . For instance, overall course scores averaging 98+ will receive A+. 94-97 will be guaranteed A. 90-93 will be guaranteed A-. 88-89 will be guaranteed B+. 84-87 will be guaranteed B; 80-83 will be guaranteed B-. 78-79 will be guaranteed C+; 74-77 C; 70-73 C-. Lower scores may receive D or F. Late work will have deduction of 10% per day up to 40% if not previously approved. Cheating will be defined according to the student code of conduct and will result in zero for assignment or F course grade. Please ask in advance if any clarification is needed. Please see additional information about student code of conduct and Title IX recommended by Purdue Student Government on bottom of this page on this syllabus. Use of ‘crib sheets’ for tests and any joint homework or reports will be described and announced in advance. By the two statements below, it is implied that student representatives are in agreement that students should maintain highest standards of conduct and should maintain high expectation of one another in regard to conduct.

It is also important that each student have the sense that they are welcome to be part of the group as contributors. In the event that students are made to feel unwelcome or intimidated based on race, ethnicity or gender, matters should be brought to my attention and will be considered as part of Title IX in regard to fair access to education. We should mention that we believe cooperation and discussion contribute to learning and certainly, we want all students to have fair access to those opportunities for learning that include fair treatment within any activities that take place inside or outside the classroom.

The statements below highlight wording recommended by Purdue Student Government (PSG) for code of conduct and two options that include a. Title IX reporting and b. other consult related “advice seeking” that does not initially require reporting and is confidential (within CARE).