



ARIZONA STATE UNIVERSITY
GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste **current** course information from *Class Search/Course Catalog*.

Academic Unit	<u>Human Systems Engineering</u>	Department	<u>The Polytechnic School</u>
Subject	<u>EGR</u>	Number	<u>103</u>
		Title	<u>Introduction to Human Systems Engineering (to be HSE 101 when new prefix approved)</u>
		Units:	<u>3</u>
Is this a cross-listed course? If yes, please identify course(s)	(Choose one) <u>No</u>		
Is this a shared course? Course description:	(choose one) If so, list all academic units offering this course		<u>No</u>

Requested designation: (Choose One)

Note- a separate proposal is required for each designation requested

Eligibility:

Permanent numbered courses must have completed the university's review and approval process.
For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu or Lauren.Leo@asu.edu.

Submission deadlines dates are as follow:

For Fall 2015 Effective Date: October 9, 2014

For Spring 2016 Effective Date: March 19, 2015

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:

Complete and attach the appropriate checklist

- [Literacy and Critical Inquiry core courses \(L\)](#)
- [Mathematics core courses \(MA\)](#)
- [Computer/statistics/quantitative applications core courses \(CS\)](#)
- [Humanities, Arts and Design core courses \(HU\)](#)
- [Social-Behavioral Sciences core courses \(SB\)](#)
- [Natural Sciences core courses \(SQ/SG\)](#)
- [Cultural Diversity in the United States courses \(C\)](#)
- [Global Awareness courses \(G\)](#)
- [Historical Awareness courses \(H\)](#)

A complete proposal should include:

- Signed General Studies Program Course Proposal Cover Form
- Criteria Checklist for the area
- Course Catalog description
- Course Syllabus
- Copy of Table of Contents from the textbook and list of required readings/books

Respectfully request that proposals are submitted electronically with all files compiled into one PDF. If necessary, a hard copy of the proposal will be accepted.

Contact information:

Name	<u>Nancy J. Cooke</u>	Phone	<u>480-727-5158</u>
Mail code	<u>2880</u>	E-mail:	<u>ncooke@asu.edu</u>

Department Chair/Director approval: *(Required)*

Chair/Director name (Typed):	<u>Ann McKenna</u>	Date:	<u>12/30/14</u>
Chair/Director (Signature):			

Arizona State University Criteria Checklist for
SOCIAL-BEHAVIORAL SCIENCES [SB]

Rationale and Objectives

Social-behavioral sciences use distinctive scientific methods of inquiry and generate empirical knowledge about human behavior, within society and across cultural groups. Courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

In both private and public sectors, people rely on social scientific findings to consider and assess the social consequences of both large-scale and group economic, technological, scientific, political, ecological and cultural change. Social scientists' observations about human interactions with the broader society and their unique perspectives on human events make an important contribution to civic dialogue.

Courses proposed for a General Studies designation in the Social-Behavioral Sciences area must demonstrate emphases on: (1) social scientific theories, perspectives and principles, (2) the use of social-behavioral methods to acquire knowledge about cultural or social events and processes, and (3) the impact of social scientific understanding on the world.

Revised April 2014

Proposer: Please complete the following section and attach appropriate documentation.

ASU--[SB] CRITERIA			
A SOCIAL-BEHAVIORAL SCIENCES [SB] course should meet all of the following criteria. If not, a rationale for exclusion should be provided.			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Course is designed to advance basic understanding and knowledge about human interaction.	see syllabus
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Course content emphasizes the study of social behavior such as that found in: <ul style="list-style-type: none"> • ANTHROPOLOGY • ECONOMICS • CULTURAL GEOGRAPHY • HISTORY 	see syllabus
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Course emphasizes: <ul style="list-style-type: none"> a. the distinct knowledge base of the social and behavioral sciences (e.g., sociological anthropological). <li style="text-align: center;">OR b. the distinct methods of inquiry of the social and behavioral sciences (e.g., ethnography, historical analysis). 	see syllabus
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Course illustrates use of social and behavioral science perspectives and data.	see syllabus
		THE FOLLOWING TYPES OF COURSES ARE EXCLUDED FROM THE [SB] AREA EVEN THOUGH THEY MIGHT GIVE SOME CONSIDERATION TO SOCIAL AND BEHAVIORAL SCIENCE CONCERNS:	
		• Courses with primarily arts, humanities, literary or philosophical content.	
		• Courses with primarily natural or physical science content.	
		• Courses with predominantly applied orientation for professional skills or training purposes.	
		• Courses emphasizing primarily oral, quantitative, or written skills.	

Course Prefix	Number	Title	General Studies Designation
HSE	103	Introduction to Human Systems Engineering	SB

Explain in detail which student activities correspond to the **specific** designation criteria.
Please use the following organizer to explain how the criteria are being met.

Criteria (from checklist)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
1	The mind is a crucial part of social behavior; topics specifically include communication, group dynamics, how humans interact with each other and with/through computers	In syllabus, see weeks 7, 9, 11, 12, and 13
2	The topics include many social and behavioral disciplines, notably psychology, anthropology, sociology, and economic decision making	See title of text; material in chapters 3, 11 and 10 include anthropological perspectives, sociology is in chapter 13, and economic decision making animates end of chapter 8
3	Both the knowledge base and the methods of the topic areas above are addressed in this course, e.g. ethnography is not only used by anthropologists, but by those studying workplace interaction.	In addition to historical material linking the field to the SB knowledge base in chapter 1 and throughout the text, modules 9, 12, 14 and 15 include methods like ethnography, intelligence/personality assessment, and health science interventions
4	An emphasis is placed on using the discoveries of cognitive and social science to illuminate practical and applied problems in how humans and systems interact, and how to design for this interaction.	Virtually every week includes such applications. The topics in modules 11-15 are particularly good examples of applying social science data to real world problems.

EGR 103: Catalog Description

Introduction to basic principles, methods, and theories of psychology and applications to engineering problems relevant to human systems. Particular attention will be given to the intersection of psychology and engineering. Students will learn brain anatomy and physiology, sensation and perception, cognition, social systems and research methods so that they are able to design systems consistent with human capabilities and limitations.

**Arizona State University
Ira A. Fulton Schools of Engineering**

**EGR 103
Introduction to Human Systems Engineering**

Instructor Vaughn Becker
Office Location SANCA 150F
Arizona State University, Polytechnic campus
Mesa, AZ 85212

E-mail Vaughn.Becker@asu.edu

Office Hours TBD

The instructor is available to meet individually with each student by appointment.
The best way to contact the instructor is through email.

Dates 08/20/15 – 12/12/15

Note: *Labor Day Holiday: September 7th - University Closed*

Fall Break: TBD – No Classes

Veterans Day Holiday: November 11th - University Closed

Thanksgiving Holiday: November 26- 27 - University Closed

Days Tuesday & Thursday

Time TBD

Location TBD

Course Description Introduction to basic principles, methods, and theories of psychology and applications to engineering problems relevant to human systems. Particular attention will be given to the intersection of psychology and engineering. Students will learn brain anatomy and physiology, sensation and perception, cognition, social systems and research methods so that they are able to design systems consistent with human capabilities and limitations.

3 credits

Prerequisites: None

**Course Objectives
& Expected Learning Outcomes**

Students will develop a basic understanding of psychology such that they will be able to:

- Describe the research methods used by psychologists.

- Use the core knowledge and analytical skills of psychology in order to address practical engineering problems.
 - Understand the relationship between body and behavior and the mechanisms of sensation and perception and states of consciousness.
 - Identify the terms and describe the concepts and processes of learning and conditioning, thinking and memory, and motivation and emotion.
 - Study how cognitive and psychological processes affect our interaction with tools, machines, and objects in the environment.
 - Explain health psychology and factors to control stress.
 - Examine the factors that influence group behavior and interpersonal relationships.
 - Explore the development of language and the various ways it is used in communication.
 - Express how psychology is applied in real world situations.
 - Describe the major and emerging areas of Human Systems Engineering.
-

Textbook

Psychology: Themes and Variations, 9th Edition
Wayne Weiten University of Nevada, Las Vegas
ISBN-10: 111135474X | ISBN-13: 9781111354749

Plus two readings from:
Psychology Applied to Modern Life: Adjustment in the 21st Century, 10th Edition
Wayne Weiten University of Nevada, Las Vegas
Dana S. Dunn Moravian College
Elizabeth Yost Hammer Xavier University
ISBN-10: 1111186634 | ISBN-13: 9781111186630

Course Pedagogy:

This class is taught in a hybrid fashion: it includes a traditional face-to-face component, but primary course material will also be presented in online lectures and videos, supplemented with activities and structured around the Blackboard Learning System. These online activities include weekly assignments, tests and quizzes, and attendance in the face-to-face sessions is required. This course also features a component that allows students to participate in psychological research or evaluate psychological research. This type of pedagogy is designed to provide the richest and most robust educational experience possible. **You are expected you to check your email and the course site on Blackboard several times each week.**

Course Evaluation

Occasional Quizzes: There will be several in-class quizzes or activities that will require that you keep up with the information.

Section Tests: Each student will complete an online exam after each of the sections in the textbook has been covered. Students should be prepared to answer 15-20 questions for each chapter. Tests will be taken through Blackboard. Students will have one week to complete the test; however the test will be timed from start to finish and the test must be completed in one sitting. Students must take the test alone, but are encouraged to use course materials and the textbook during the test. The final section test (not comprehensive) will be taken in class during exam week.

Virtual Lab Crawl: Students will be required to view several short videos—TED style talks—introducing the types of research being carried out in Human Systems Engineering. Each student will be asked to respond to series of questions regarding the research and its applications. These activities will be spread out over the semester.

Research Participation: All students are required to participate in 3 psychological experiments as research subjects. There will be various opportunities to participate throughout the semester; but students are highly encouraged to complete this assignment early in the semester. All experiments have been reviewed and cleared by the ASU Institutional Review Board. Students who do not wish to participate as research subject will have the opportunity to write three 350 word reports that review research articles selected by the faculty. Students may also choose to do a combination of experiments and reports. Information about participating in experiments will be available on the Sona System website. Articles to review and instructions for the reports will be available on Blackboard. Students may choose to participate in a fourth experiment or review a fourth article for 25 extra credit points. Students have the entire semester to complete this assignment, **but must complete at least one hour of research within the first month of the class.** Please be advised that extensions or exceptions are rarely granted with regard to research participation.

Sona System Account: Each student is required to create an account in the Sons System for the purpose of research participation. A Sona account is required even if you do not plan to participate in research and only plan to write reports.

Attendance: Students are expected to attend class. Attendance at each class is worth 2 points. Written attendance will be taken before the end of each class. Your signature on the attendance sheet will be considered the official record of your class attendance. If your signature is not on the attendance sheet, you will be considered absent from class on that day, regardless of whether or not you actually were in class.

Grading	<u>Assignment</u>	<u>Points</u>	<u>Total Points</u>
	Quizzes	5	45
	Section Tests	50	250
	Virtual Lab Crawl Reports	10	50
	Research Participation/Reports	25	75
	Attendance	2	30
		Total	450

* The instructor reserves the right to modify the number of section tests as the course progresses.

Letter Grades:	A+ = 98-100%
	A = 92-97%
	A- = 90-91%
	B+ = 88-89%
	B = 82-87%
	B- = 80-81%
	C+ = 78-79%
	C = 70-77%
	D = 60-69%
	E = Below 60%

Due Dates

Quizzes	As Posted on Blackboard
Sona System Account	TBD
Section Tests	As Posted on Blackboard
Virtual Lab Crawl	As Posted on Blackboard
Research Participation	End of Semester

Late assignments will result in a ½-point deduction from the final grade for each day that they are late.

Calendar

Module (week)	Topic	Reading
1	Overview, History	<i>Chapter 1</i>
2	Research methods	<i>Chapter 2</i>
3	Biological Bases, Consciousness	<i>Chapter 3, 5</i>
4	Sensation and Perception	<i>Chapter 4</i>
5	Learning	<i>Chapter 6</i>
6	Memory	<i>Chapter 7</i>
7	Language & Cognition (incl. development)	<i>Chapter 8, 11</i>
8	Motivation and Emotion	<i>Chapter 10</i>
9	Communication and Human Computer Interaction	<i>supp reading</i>
10	Assessment: Intelligence and Personality	<i>Chapters 9, 12</i>
11	Group processes and networks	<i>Chapter 13</i>
12	Consumer Psychology and Personality	<i>Chapter 12</i>
13	Industrial/Organizational	<i>Appendix C</i>
14	Health Psychology (incl. psychopathology)	<i>Chapter 13, 14</i>
15	Sustainability in Design, Positive Psychology	<i>Appendix D, supp reading</i>

Honors Contracts Please speak to the instructor in the first two weeks of class if you would like to do an Honors contract.

Course Standards

Arizona State University specifies that in preparation for every course, students will satisfy all prerequisites. All grades for this course will be determined by the student performance. Performance assessments will be made with regard to the expectations put forth on the class syllabus. It is the responsibility of the student to come prepared for each class. ASU trusts each student to maintain high standards of academic honesty and ethical behavior. All assignments submitted in fulfillment of course requirements must be the student's own work. All assignments must be submitted by their due date. All papers are to be submitted in APA style. It is expected that students will pay attention to correct spelling and the use of proper grammar.

Academic Integrity and Student Conduct Policy:

Students are expected to execute all course assignments and activities in accordance with the ASU Academic Integrity Policy. See

<http://provost.asu.edu/academicintegrity>.

Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students. For additional guidelines, go to the following websites:

Student Resources – Avoiding Academic Integrity Policy Violations: This site includes issues of plagiarism

http://provost.asu.edu/academicintegrity/students#avoid_policy_violations.

ASU Code of Conduct: <http://azregents.asu.edu/rrc/Policy%20Manual/5-308-Student%20Code%20of%20Conduct.pdf>.

The Computer, Internet, and Electronic Communications Policy:

<http://www.asu.edu/aad/manuals/acd/acd125.html>.

ADA Statement

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. One element of this legislation requires that all qualified students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation please contact the Disability Resource Center at ASU Polytechnic located in Sutton Hall, Suite 240, or call 480-727-1039 / TTY: 480-727-1009. Eligibility and documentation policies online: <http://www.asu.edu/studentaffairs/ed/drc/>

Nondiscrimination

It is the policy of ASU to provide equal opportunity through affirmative action in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, national origin, citizenship, sex, gender identity, sexual orientation, age, disability, Vietnam-era veteran status, other protected veteran status, newly separated veteran status, or special disabled veteran status. Equal employment opportunity includes but is not limited to: recruitment, hiring, promotion, termination, compensation, benefits, transfers, university-sponsored training, education, tuition assistance, and social and recreational programs. ASU is committed to taking affirmative action in increasing opportunities at all levels of employment and to increasing participation in programs and activities by all faculty, staff, and students.

Affirmative action is directed toward minority persons, women, Vietnam-era veterans, other protected veterans, newly separated veterans, special disabled veterans, and persons with disabilities. Any employee or student may visit with the director of the Office of Diversity, Human Resources to confidentially discuss any concern and to explore available options without fear of jeopardizing either employment or academic status within the university. Taken from: ACD 401: Equal Opportunity/Affirmative Action. Retrieved from <http://www.asu.edu/aad/manuals/acd/acd401.html>

Sexual Harassment

The University prohibits sexual harassment by employees and students and will not tolerate sexual harassment that unlawfully interferes with an individual's work or educational performance or unlawfully creates an intimidating, hostile, or offensive working, learning, or residential environment. Violations of this policy may result in disciplinary action up to and including termination for employees, and in sanctions including suspension or expulsion for students. Violations of this policy by persons who are not employees or students of the university are subject to sanction under the Student Code of Conduct or the Rules for the Maintenance of Public Order as they may be adopted and amended by the Arizona Board of Regents. This policy is subject to constitutionally protected speech rights and principles of academic freedom. Taken from: ACD 402: Sexual Harassment. Retrieved from <http://www.asu.edu/aad/manuals/acd/acd402.html>

Copyright

All materials produced for this course are considered intellectual property of the professor or student that produced them. You may not reproduce, duplicate, or otherwise recreate any of the content of this course without the express written permission of the person who created it.

Copyright: <http://lib.asu.edu/policies/copyright>.

Copyright, Fair Use, and Media issues on Blackboard:
<http://libguides.asu.edu/content.php?pid=29995&sid=219476>.

Copyright and Trademark Statement: <http://www.asu.edu/copyright/>.

Intellectual Property <https://azregents.asu.edu/rrc/Policy%20Manual/6-908-Intellectual%20Property%20Policy.pdf>.

Myths about copyright are addressed at this site and should help us with copyright questions <http://www.templetons.com/brad/copymyths.html>.

Ownership Issues: Each student owns their own work including Discussion Board items. However, it is understood that unless you contact me and request another arrangement, I have permission to post your work on Blackboard and share it with all registered students, faculty,

Technical Support and Resources:

ASU Help Center:

http://help.asu.edu/sims/selfhelp/SelfHelpHome.seam?dept_pk=822.

ASU Academic Catalog: <http://catalog.asu.edu/node/1>.

Schedule of Classes: <https://webapp4.asu.edu/catalog/>.

Email: A beginner's Guide to Effective Email

<http://www.webfoot.com/advice/email.top.html>

Email: A general site that seems to have some good information but it is unclear who publishes the site <http://www.emailreplies.com/>

Human Subjects in Research: <http://researchintegrity.asu.edu/humans>.

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