

This template is to be used only by programs that have received specific written approval from the Provost's office to proceed with internal proposal development and review. The proposal template should be completed in full and submitted to the University Provost's Office [mailto: [curriculumplanning@asu.edu](mailto:curriculumplanning@asu.edu)]. It must undergo all internal university review and approval steps including those at the unit, college, and university levels. A program **may not** be implemented until the Provost's Office notifies the academic unit that the program may be offered.

**College/School/Institute:** Ira A. Fulton Schools of Engineering  
**Department/Division/School:** The Polytechnic School  
**Proposing Faculty Group (if applicable):** Human Systems Engineering unit  
**If this is an official joint degree program?** No, this is not a joint degree program

*If "Yes" List all the additional college(s)/school(s)/institute(s) that will be involved in offering the degree program and providing the necessary resources. Note: All units offering this program must have collaborated in the proposal development and completed the appropriate unit and college/school approvals.*

**Degree type:** BS-Bachelor of Science  
 If other; provide degree type title and proposed abbreviation:  
**Name of degree program (major):** Human Systems Engineering  
**Are any concentrations to be established under this degree program?** No, concentrations will not be established.  
**Is a program fee required?** Yes, a program fee is required.  
**What is the first catalog year available for students to select on the undergraduate application for this this program?** 2016-2017  
**Delivery method:** On-campus only (ground courses and/or iCourses)  
*Note: Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.*

**Campus/Locations:** indicate all locations where this program will be offered.  
 Downtown Phoenix       Polytechnic       Tempe       West      Other:


**Proposal Contact**

**Name:** Nancy Cooke      **Title:** Professor  
**Phone number:** 480-727-5158      **Email:** ncooke@asu.edu

**DEAN APPROVAL(S)**

**This proposal has been approved by all necessary unit and College/School levels of review. I recommend implementation of the proposed organizational change.**

**College/School/Division Dean name:** James S. Collofello

**Signature**       **Date:** 4 / 8 / 2015

**College/School/Division Dean name:**  
*(if more than one college involved)*  
**Signature** \_\_\_\_\_      **Date:**  / / 20

*Note: An electronic signature, an email from the dean or dean's designee, or a PDF of the signed signature page is acceptable.*

## 1. Purpose and Nature of Program

Provide a brief program description. Include the distinctive features of the program that make it unique.

The BS in human systems engineering provides students who design and build technology and systems for humans with the theoretical background in human performance and methodological skills (e.g., task analysis, prototyping, user experience design, human-in-the-loop experiments) to build systems that take into account human capabilities and limitations. The degree extends psychology (cognitive, physiological, perceptual, social, organizational) to engineering applications. The degree will produce students well-grounded in the science of human cognition and behavior and capable of understanding the implications of this science for engineering endeavors. Human systems engineering skills are increasingly valued by industry, yet are not typically covered in traditional psychology programs. Students majoring or minoring in Human Systems Engineering will enhance their employment potential. The BS in human systems engineering is a unique blend of psychology and engineering offered by psychologists in an engineering college.

## 2. Student Learning Outcomes and Assessment Methods

### A. Knowledge, competencies, and skills

List the knowledge, competencies, and skills students should have when they graduate from the proposed degree program. (You can find examples of program Learning Outcomes at (<http://www.asu.edu/oue/assessment.html> )

1 Graduates of the BS in human systems engineering program will be able to apply psychological theory and research to engineering problems involving humans

2 Graduates of the BS in human systems engineering program will demonstrate competency in applying HSE statistical and design methods to engineering problems involving humans

### B. Assessment

Describe the plan and methods to assess whether students have achieved the knowledge, competencies and skills identified in the Learning Outcomes. (You can find examples of assessment methods at (<http://www.asu.edu/oue/assessment.html> )

Measure 1.1 Mean performance on exams in Applied Cognitive Science (HSE 324)

PC 1.1 70% of students will receive a mean score of C or better on exams in HSE 324

Measure 1.2 Performance on the (HSE 477) capstone project proposal (problem statement and literature review)

PC 1.2 70% of students will receive a mean score of C or better on the capstone proposal

Measure 2.1 Mean performance on exams in Statistics for Human Systems Research II (HSE 330)

PC 2.1 70% of students will receive a mean score of C or better on exams in HSE 330

Measure 2.2 Performance on the methods and results sections of the (PSY 477) capstone project report

PC 2.2 70% of students will receive a mean score of C or better on the methods and results sections of the capstone report

## 3. Academic Curriculum and Requirements

### A. Major Map.

Attach a copy of the “proposed” major map for this degree program and each concentration(s) to be offered. Instructions on how to create a “proposed major map” in [BAMM](#) can be found in the [Build a Major Map Training Guide](#).

**B. Summary of credit hours required for this program**

Total credit hours must be 120 and include first year composition, general studies, core/required courses, program specific electives, and any additional requirements (e.g., concentration credits).

Requirements	Credit Hours
<b>First Year Composition</b>	6
<b>ASU 101 (or Equivalent)</b>	1
<b>General Studies</b>	10
<b>Core/required courses</b>	52
<b>Program specific electives</b>	15
<b>Additional requirements – Focus Area</b>	12
<b>Other; please explain General University Electives</b>	24
<b>Total</b>	<b>120</b>

**C. Core/Required Courses.**

i. Total required and/or core course credit hours: 52

ii. List the name, prefix, and credit hours for each required/core course for this program

BIO 100: The Living World (SQ) or BIO 181: General Biology I (SQ) or BIO 182: General Biology II (SG) or BIO 201: Human Anatomy and Physiology I (SG) or BIO 202: Human Anatomy and Physiology II (SG) (4)

CIS 105: Computer Applications and Information Technology (CS) (3) or CSE 180: Computer Literacy (CS) (3) or CST 100: Object-Oriented Software Development I (3) or EDT 180: Problem Solving Using Digital Technology Applications (CS) (3).

HSE 101: Introduction to Human Systems Engineering (SB) 3

EGR 101: Foundations of Engineering Design Project I OR EGR 104: Critical Inquiry in Engineering (L) 3

EGR 219: Computational Modeling of Engineering Systems or CPI 101: Introduction to Informatics (3)

HSE 230: Statistics for Human Systems Research I(CS) 3

HSE 223: Applied Biology of Human Behavior (SB) 3

HSE 224: Applied Social Science (SB) 3

HSE 225: Human Systems Integration 3

HSE 290: Experimental Methods for Human Systems Research (L) 3

HSE 323: Perceptual Systems (SB - pending) 3

HSE 324: Applied Cognitive Science (SB) 3

HSE 325: Human-Computer Interaction 3

HSE 330: Statistics for Human Systems Research II (CS) 3

HSE 390: Qualitative Research Methods (L) 3

HSE 477: Human Systems Engineering Capstone Experience (3)

MAT 170: Precalculus (MA) (3)



#### 4. New Course Development

**A. Will a new course prefix (es) be required for this degree program? Yes**

If yes, list prefix name(s) (i.e. ENG- English) HSE

*Note: A request for a New Prefix form must be completed for each new prefix required and submitted with this proposal:  
[http://provost.asu.edu/files/shared/curriculum/Prefix\\_Request.doc](http://provost.asu.edu/files/shared/curriculum/Prefix_Request.doc).*

**B. New Courses Required for Proposed Degree Program.**

List all new courses required for this program, including course prefix, number and course description.

*Note: New course requests must be submitted electronically via [Curriculum ChangeMaker](#) and undergo all internal university review and approval steps including those at the unit, college, and university levels.*

**5. Program Need**

Explain why the university needs to offer this program (include target audience and market).

Engineers build technology and systems of technology that are used by humans. Much of this technology never gets used because it does not fit the need or is not useable. The HSE program will provide engineers and others with background in human capabilities and limitations and with methodological skills to translate this theory and research into safer and more effective systems. Engineers and others who develop systems for human needs and usability can 1) make safer systems and 2) enhance marketability.

**6. Impact on Other Programs**

List other academic units that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs). Attach letters of collaboration/support from impacted programs.

Community college transfers could be impacted by the human systems engineering program, though because the lower division HSE courses overlap (though not completely) with PSY courses the human systems engineering program will accept transfer students with those lower division PSY courses. In addition there may be students enrolling in the HSE lower division courses who would have normally enrolled in PSY courses, however, this is not a change as students who are PSY majors at Tempe have also taken the PSY courses from our unit. Impact statements are attached from the psychology programs in Tempe and West as well as various other programs with courses that may overlap.

**7. Projected Enrollment**

How many new students do you anticipate enrolling in this program each year for the next five years?

<b>5-YEAR PROJECTED ANNUAL ENROLLMENT</b>					
	<b>1<sup>st</sup> Year</b>	<b>2<sup>nd</sup> Year</b> (Yr 1 continuing + new entering)	<b>3<sup>rd</sup> Year</b> (Yr 1 & 2 continuing + new entering)	<b>4<sup>th</sup> Year</b> (Yrs 1, 2, 3 continuing + new entering)	<b>5<sup>th</sup> Year</b> (Yrs 1, 2, 3, 4 continuing + new entering)
Number of Students Majoring (Headcount)	25	75	150	200	200

**8. Accreditation or Licensing Requirements**

If applicable, provide the names of the external agencies for accreditation, professional licensing, etc. that guide your curriculum for this program, if any. Describe any requirements for accreditation or licensing.

The Human Factors and Ergonomics Society accredits graduate programs only, but the accreditation requirements have guided the development of this undergraduate program.

## 9. Faculty & Staff

### A. Current faculty

List the name, rank, highest degree, area of specialization/expertise and estimate of the level of involvement of all current faculties who will teach in the program.

Level of involvement: All of the faculty listed here will be engaged in teaching courses for this program and in curriculum development and assessment activities. A rough estimate is 20% FTE per faculty will be devoted to teaching in this undergraduate program.

Vaughn Becker, PhD, Associate Professor, cognitive science, cognitive readiness, fatigue and stress, statistics  
Russell Branaghan, PhD, Associate Professor, human-computer interaction, product design, medical systems  
Nancy J. Cooke, PhD, Professor, teamwork, cognition, human systems integration, human-automation interaction  
Scotty Craig, PhD, Assistant Professor, learning technologies, virtual training technologies, methods  
Rob Gray, PhD, Associate Professor, human performance in sports, transportation systems, perception and action  
Rod Roscoe, PhD, Assistant Professor, writing performance, intelligent tutors, skill acquisition  
Hyunjin Song, PhD, Assistant Professor, social psychology, judgment and decision making, organizational behavior  
Jeff Thomas, PhD, Faculty Associate, emergency response, introduction to HSE  
Bing Wu, PhD, Assistant Professor, sensation and perception, physiological psychology, neuropsychology

### B. New Faculty:

Describe the new faculty hiring needed during the next three years to sustain the program. List the anticipated hiring schedule and financial sources for supporting the addition of these faculty members.

No new faculty needed until we grow our majors to over 150 which is estimated to happen in the 4th year.

### C. Administration of the program.

Explain how the program will be administered for the purposes of admissions, advising, course offerings, etc. Discuss the available staff support.

Our BS in industrial and organizational psychology has been administered through The Polytechnic school's advising, recruiting, and admissions staff in conjunction with program chair, Nancy Cooke and administrative assistant, Becky Montez. The BS in human systems engineering will be administered by the same Polytechnic School personnel, that have administered the BS in industrial and organizational psychology.

## 10. Resources (necessary to launch and sustain the program)

### A. Required resources:

Describe any new resources required for this program's success, such as new support staff, new facilities, new library resources, new technology resources, etc.

We anticipate offering large sections of HSE 101 and depending on the mode of delivery may require Vidyo capabilities as well as large classrooms holding 100 - 200 students.

### B. Resource acquisition:

Explain how the resources to support this program will be obtained.

Vidyo capabilities exist at the Polytechnic campus and the Ira A. Fulton Schools of Engineering understand the need for larger classrooms on the Polytechnic campus.

**APPENDIX**  
**OPERATIONAL INFORMATION FOR UNDERGRADUATE PROGRAMS**  
(This information is used to populate the Degree Search/catalog website.)

**1. Program Name (Major):** Human Systems Engineering

**2. Program Description (150 words maximum)**

The BS in human systems engineering provides students with the theoretical background and methodological skills to design and build technology and systems for humans that place the human at the center. The bachelor's in human systems engineering is a unique blend of psychology and engineering offered by psychologists in an engineering college. By extending psychology (cognitive, physiological, perceptual, social, organizational) to engineering problems, the program will produce students well-grounded in psychological science, and students will be capable of understanding the implications of this science for engineering endeavors.

Human systems engineering skills are increasingly valued by industry, yet are not typically covered in traditional psychology or engineering programs. Students with a major or a minor in human systems engineering will enhance their employment potential.

**3. Contact and Support Information**

Building Name, code and room number: ( <i>Search ASU map</i> )	WANER 240J
Program office telephone number: ( <i>i.e. 480/965-2100</i> )	480/727-1874
Program Email Address:	technology@asu.edu
Program Website Address:	http://innovation.asu.edu/hse

**4. Delivery/Campus Information Delivery:** On-campus only (ground courses and/or iCourses)

*Note: Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.*

**5. Campus/Locations:** indicate all locations where this program will be offered.

Downtown Phoenix     Polytechnic     Tempe     West    Other:

**6. Additional Program Description Information**

- A. Additional program fee required for this program?    Yes
- B. Does this program have a second language requirement?    No

**7. Career Opportunities & Concentrations**

Provide a brief description of career opportunities available for this degree program. If program will have concentrations, provide a brief description for each concentration. (150 words maximum)

The human systems engineering program prepares students for industry and government positions in a career such as a:

- game designer
- human factors engineer
- human systems integrator
- interface designer
- user experience designer

Graduates may work as a member of a product or system design team.

**8. Additional Admission Requirements**

If applicable list any admission requirements (freshman and/or transfer) that are higher than and/or in addition to the university minimum undergraduate admission requirements.) N/A

**9. Keywords**

List all keywords used to search for this program. Keywords should be specific to the proposed program.



human systems engineering, human factors, human systems integration, psychology, cognitive science, human-computer interaction, interface design

**10. Advising Committee Code**

List the existing advising committee code to be associated with this degree. UGES51

*Note: If a new advising committee needs to be created, please complete the following form:*

[Proposal to create an undergraduate advising committee](#)

**11. First Required Math Course**

List the first math course required in the major map.

MAT 170: Precalculus

**12. WUE Eligible:**

Has a request been submitted to the Provost by the Dean to consider this degree program as eligible for WUE? No

*Note: No action will be taken during the implementation process with regards to WUE until approval is received from the Provost.*

**13. Math Intensity:**

a. List the highest math course required on the major map. (This will not appear on Degree Search.) MAT 170

b. What is the math intensity as indicated by the highest math required on the major map? Math intensity categorization can be found here: <https://catalog.asu.edu/mathintensity> Moderate

**14. CIP codes**

Identify CIP codes that should be displayed on Degree Search. CIP codes can be found at:

<http://www.onetonline.org/crosswalk/CIP/>.

30.3101

Are any specific career codes (SOC/ONET codes) to be omitted from the CIP codes selected above? (i.e. "Omit 25-10312.00 Engineering Teachers, Postsecondary from CIP code 14.0501 Bioengineering and Biomedical Engineering.")

**15. Area(s) of Interest**

A. Select **one (1)** primary area of interest from the list below that applies to this program.

- |  |  |
|--|--|
| <input type="checkbox"/> <b><u>Architecture &amp; Construction</u></b> | <input type="checkbox"/> <b>Health &amp; Wellness</b>                            |
| <input type="checkbox"/> <b><u>Arts</u></b>                            | <input type="checkbox"/> <b>Humanities</b>                                       |
| <input type="checkbox"/> <b>Business</b>                               | <input type="checkbox"/> <b><u>Interdisciplinary Studies</u></b>                 |
| <input type="checkbox"/> <b><u>Communications &amp; Media</u></b>      | <input type="checkbox"/> <b><u>Law &amp; Justice</u></b>                         |
| <input type="checkbox"/> <b>Computing &amp; Mathematics</b>            | <input type="checkbox"/> <b><u>STEM</u></b>                                      |
| <input type="checkbox"/> <b>Education &amp; Teaching</b>               | <input type="checkbox"/> <b><u>Science</u></b>                                   |
| <input type="checkbox"/> <b><u>Engineering &amp; Technology</u></b>    | <input checked="" type="checkbox"/> <b><u>Social and Behavioral Sciences</u></b> |
| <input type="checkbox"/> <b>Entrepreneurship</b>                       | <input type="checkbox"/> <b>Sustainability</b>                                   |
| <input type="checkbox"/> <b><u>Exploratory</u></b>                     |  |

B. Select **one (1)** secondary area of interest from the list below that applies to this program.

- |  |   |
|--|---|
| <input type="checkbox"/> <b><u>Architecture &amp; Construction</u></b>         | <input type="checkbox"/> <b>Health &amp; Wellness</b>                 |
| <input type="checkbox"/> <b><u>Arts</u></b>                                    | <input type="checkbox"/> <b>Humanities</b>                            |
| <input type="checkbox"/> <b>Business</b>                                       | <input type="checkbox"/> <b><u>Interdisciplinary Studies</u></b>      |
| <input type="checkbox"/> <b><u>Communications &amp; Media</u></b>              | <input type="checkbox"/> <b><u>Law &amp; Justice</u></b>              |
| <input type="checkbox"/> <b>Computing &amp; Mathematics</b>                    | <input type="checkbox"/> <b><u>STEM</u></b>                           |
| <input type="checkbox"/> <b>Education &amp; Teaching</b>                       | <input type="checkbox"/> <b><u>Science</u></b>                        |
| <input checked="" type="checkbox"/> <b><u>Engineering &amp; Technology</u></b> | <input type="checkbox"/> <b><u>Social and Behavioral Sciences</u></b> |
| <input type="checkbox"/> <b>Entrepreneurship</b>                               | <input type="checkbox"/> <b>Sustainability</b>                        |
| <input type="checkbox"/> <b><u>Exploratory</u></b>                             |   |

The following fields are to be completed by the Office of the University Provost.

**CIP Code:** \_\_\_\_\_

**Plan Code:**



## 2016 - 2017 Major Map

### Human Systems Engineering (BS), (Proposed)

OLSORPZ

Term 1	0 - 14 Credit Hours	Critical course signified by	Hours	Minimum Grade	Notes
ASU 101: The ASU Experience			1	C	<ul style="list-style-type: none"> <li>An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses</li> <li>ASU Mathematics Placement Test score determines placement in Mathematics course</li> <li>ASU 101 or College specific equivalent First Year Seminar required of all freshman students</li> </ul>
HSE 101: Introduction to Human Systems Engineering (SB) or PSY 101: Introduction to Psychology (SB)			3	C	
MAT 170: Precalculus (MA)			3	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition			3	C	
Biological Science (SG or SQ) AND Natural Science - General (SG) or Natural Science - Quantitative (SQ)			4		
Term hours subtotal:			14		

Term 2	15 - 30 Credit Hours	Critical course signified by	Hours	Minimum Grade	Notes
EGR 101: Foundations of Engineering Design Project I OR EGR 104: Critical Inquiry in Engineering (L)			3		
HSE 230: Statistics for Human Systems Research I (CS)			3	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition			3	C	
Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)			3		
Natural Science - Quantitative (SQ)			4		
Term hours subtotal:			16		

Term 3	31 - 45 Credit Hours	Critical course signified by	Hours	Minimum Grade	Notes
HSE 223: Applied Biology of Human Behavior (SB)			3	C	
HSE 290: Experimental Methods for Human Systems Research (L)			3	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)			3		
Related Area (Focus)			3		
Elective			3		
Complete ENG 101 OR ENG 105 OR ENG 107 course(s).					
Complete Mathematics (MA) requirement.					
Term hours subtotal:			15		

Term 4	46 - 60 Credit Hours	Critical course signified by	Hours	Minimum Grade	Notes
HSE 224: Applied Social Science (SB)			3	C	
HSE 225: Human Systems Integration			3	C	
EGR 219: Computational Modeling of Engineering Systems OR CPI 101: Introduction to Informatics (CS)			3		
CIS 105: Computer Applications and Information Technology (CS) OR CSE 180: Computer Literacy (CS) OR SER 100: Object-Oriented Software Development OR EDT 180: Technology Literacy: Problem Solving using Digital Technology Applications (CS)			3		
Global Awareness (G)			3		
Term hours subtotal:			15		

Term 5	61 - 75 Credit Hours	Necessary course signified by	Hours	Minimum Grade	Notes
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★ HSE 330: Statistics for Human Systems Research II (CS)	3	C
★ HSE 390: Qualitative Research Methods (L)	3	
HSE 324: Applied Cognitive Science (SB)	3	
Related Area (Focus)	3	
Upper Division Elective	3	
Term hours subtotal:	15	

★ Term 6	76 - 90 Credit Hours	Necessary course signified by ★	Hours	Minimum Grade	Notes
★ HSE 323: Perceptual Systems			3		
HSE 325: Human-Computer Interaction			3		
Upper Division Human Factors Elective			3		
Related Area (Focus)			3		
Upper Division Elective			3		
Term hours subtotal:			15		

★ Term 7	91 - 105 Credit Hours	Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Human Factors Elective			3		
★ Upper Division Training Elective			3		
Upper Division Related Area (Focus)			3		
Upper Division Elective			3		
Elective			3		
Term hours subtotal:			15		

★ Term 8	106 - 120 Credit Hours	Necessary course signified by ★	Hours	Minimum Grade	Notes
★ HSE 477: Human Systems Engineering Capstone Experience			3	C	
Complete 2 courses: Upper Division Human Factors Elective			6		
Complete 2 courses: Elective			6		
Term hours subtotal:			15		

- The Related Area (Focus) is made up of 12 credit hours from courses with the prefixes below. 3 credit hours must be upper division.

Biological Science (SQ)	Upper Division Human Factors Electives	Upper Division Training Electives
BIO 100: The Living World (SQ)		HSE 426: Training and Expertise
BIO 181: General Biology I (SQ)	HSE 423: Human Factors in Transportation	HSE 427: Designing for Learning
BIO 182: General Biology II (SG)	HSE 424: Human Automation Interaction	
BIO 201: Human Anatomy and Physiology I (SG)	HSE 425: Human Factors in Medical Systems	
	HSE 428: Judgment and Decision Making	
	HSE 429: Product Design and Evaluation	
	PSY 449: Human Factors in Sport	
Related Area (Focus)		
BMI Elective		
CSE Elective		
EEE Elective		
EGR Elective		
GIT Elective		

[Hide Course List\(s\)/Track Group\(s\)](#)

HSE Elective

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IEE Elective

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**Total Hours:** 120

**Upper Division Hours:** 45 minimum

**Major GPA:** 2.00 minimum

**Cumulative GPA:** 2.00 minimum

**Total hrs at ASU:** 30 minimum

**Hrs Resident Credit for**

**Academic Recognition:** 56 minimum

**Total Community College Hrs:** 64 maximum

#### General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2016 - 2017 academic year.

**From:** Duane Roen

**Sent:** Wednesday, September 9, 2015 5:46 PM

**To:** Curriculum Planning <CurriculumPlanning@exchange.asu.edu>

**Cc:** Nancy Cooke <Nancy.Cooke@asu.edu>; Katie Jensen (Provost Office) <Katherine.Jensen@asu.edu>; Jennifer Malerich <Jennifer.Malerich@asu.edu>

**Subject:** RE: Human Systems Engineering - Request for Letter of Impact

All,

I am delighted to support the proposal to establish an undergraduate degree in Human Systems Engineering, BS from the Fulton Schools of Engineering.

This is will be an exciting degree.

Best,  
Duane

Duane Roen  
Dean, College of Letters and Sciences  
Dean, University College  
Arizona State University | Undergraduate Academic Services Building, Room 228  
Box 871901 | Tempe, AZ 85287-1901  
Voice: 480-727-6513 | Fax: 480-727-6344 | Email: [duane.roen@asu.edu](mailto:duane.roen@asu.edu)

## **IMPACT STATEMENT, DEPARTMENT OF PSYCHOLOGY (CLAS)**

Nancy-

Thank you for the opportunity to review the new Human Systems Engineering degree programs by Fulton.

On behalf of the Psychology Department, I am pleased to support the proposal to establish a BS degree program in Human Systems Engineering (as well as the accompanying minor).

This program (with its new prefix and more clearly articulated mission) appears to have great potential to build on the existing strengths of the existing I/O Psychology program to benefit the students at Fulton directly by making more explicit the important human dimensions of successful engineering applications, and more generally will (hopefully) reduce some of the natural confusion of the multiple PSY Psychology degrees.

Many of the courses have understandable overlap with PSY courses from which they have evolved, but the overall program as proposed will more clearly differentiate the new program from the psychology degree programs that our department maintains.

The articulation of the specific courses will be worked out by the programs over time on a course-by-course basis.

Our understanding is that these new HSE courses will replace the current offerings, and that moving forward that PSY courses would no longer be offered by the unit at Poly.

We look forward to the success of your new program.

Clark

--

Clark C Presson

Professor and Director of Undergraduate Studies

Department of Psychology

Arizona State University-Tempe

[presson@asu.edu](mailto:presson@asu.edu)

## **NEW COLLEGE IMPACT CONCERNING MULTIPLE COURSES**

Jeffrey Kassing

Monday, August 04, 2014 5:13 PM

Nancy Cooke

Re: proposed courses for human systems engineering

Hi Nancy,

Thanks for your note and effort to reach out and run this by us. We do not see any problems from this end.

And wish you the best in developing and launching the new program.

Best,

Jeff

Jeffrey W. Kassing

Professor/Director

School of Social & Behavioral Sciences

New College of Interdisciplinary Arts & Sciences

Arizona State University

(602) 543-6631

[jkassing@asu.edu](mailto:jkassing@asu.edu)

[dissentworks.com](http://dissentworks.com)



# HERBERGER IMPACT CONCERNING EGR 225 HUMAN SYSTEMS INTEGRATION

From: Jennifer Setlow

Sent: Monday, August 04, 2014 3:43 PM

To: Nancy Cooke

Subject: RE: proposed course for human systems engineering

Dear Professor Cooke,

I have asked the Design School to review this proposal, and we have no objections to the course. All the best with your new program!

Best,

Jennifer Setlow

Associate Dean for Students

ASU Herberger Institute for Design and the Arts

Dixie Gammage Hall, Rm. 132

PO Box 872102

Tempe, AZ 85287-2102

p: 480.965.0050

f: 480.727.6529

# **BIOMEDICAL INFORMATICS IMPACT CONCERNING EGR 422: HUMAN MEDICAL SYSTEMS**

From: George Runger

Sent: Monday, August 04, 2014 12:08 PM

To: Nancy Cooke

Subject: RE: proposed course for human systems engineering

Ms. Cooke

We reviewed the outline. There are no objections to the proposed course.

George C. Runger

Chair, Department of Biomedical Informatics

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## CAREY SCHOOL IMPACT CONCERNING EGR 428 JUDGEMENT AND DECISION MAKING IN HUMAN SYSTEMS

**From:** Beth Walker  
**Sent:** Monday, August 18, 2014 1:51 PM  
**To:** Nancy Cooke; Kay Faris  
**Subject:** RE: proposed course for human systems engineering

Hi Nancy,

This is fine. You've completely changed this course, and we really appreciate it. This offering is distinct from MKT 402, Consumer Behavior. Thanks for addressing our concerns.

Beth

Beth A. Walker

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**From:** Nancy Cooke  
**Sent:** Saturday, August 16, 2014 11:23 AM  
**To:** Beth Walker; Kay Faris  
**Subject:** RE: proposed course for human systems engineering

Kay, Beth:

Please see the attached syllabus. The faculty have completely re-oriented to course toward applied judgment and decision making with applications that include consumer decision making but that are much broader. Please let me know if this seems distinct from your consumer behavior course and if you anticipate any impact of this revised course.

Thanks,

Nancy