

BSHFE Notes

- (a) Mathematics or Natural Science Elective
Courses selected may not be used to fulfill any other course requirement. The following courses are recommended: MATH 42, MATH 61, MATH 70.
Select From:
Any course having attribute SOE-Mathematics
Any course having attribute SOE-Natural Sciences
- (b) Probability & Statistics
Courses selected may not be used to fulfill any other course requirement.
Select From: ES 56, MATH 165, MATH 166, CEE 156, ME 102.
Specific pre-requisites (e.g. MATH 42) may be required.
- (c) Psychology Elective
Courses selected may not be used to fulfill any other course requirement.
Select From:
Any PSY course
- (d) Any course having the attribute SOE-HASS-Humanities. This humanities elective may not be satisfied with pre-matriculation credits, ENG 1, or ENG 3.
- (e) Humanities, Arts or Social Sciences Electives
Select From:
Any course having attribute SOE-HASS
Any course having attribute SOE-HASS-Humanities
Any course having attribute SOE-HASS-Arts
Any course having attribute SOE-HASS-Social Sciences
- (f) Senior Capstone
Courses selected may not be used to fulfill any other course or elective requirement except as noted below for CS 98.
Select from:
ENP 120, ME 74, CS 97 & 98 (note: if you choose CS 97 & 98, CS 98 can be used to fulfill a domain or CS elective)
- (g) HFE Core Elective
Courses selected may not be used to fulfill any other course requirement.
Select From:
ENP 109, ENP 110, ENP 112, ENP 114, ENP 162, ENP 163
- (h) CS or HFE Core Elective
Courses selected may not be used to fulfill any other course requirement.
Select From:
Any CS course having attribute SOE-Computing
Any CS course having attribute SOE-Engineering
Any CS course having attribute SOE-Mathematics
Additionally approved courses: ENP 109, ENP 110, ENP 112, ENP 114, ENP 162, ENP 163
- (i) HFE Open Elective
Courses selected may not be used to fulfill any other course requirement.
Select From:
Any ENP course
- (j) Domain Electives
In keeping with the interdisciplinary and multidisciplinary nature of the field, students are encouraged to choose electives from among a wide array of fields. Your domain focus electives should be chosen to compliment your career objectives and prepare you to do human factors engineering within a specific domain. For example, if you are interested in doing HFE work in biomedical devices, then these electives might be in Biomedical Engineering, or in biology, medicine, and related areas.
Courses may only be taken from the academic units listed below.
Courses selected may not be used to fulfill any other course requirement.
All courses must be at least 3 SHUs each.
At least 2 courses must be from the same academic unit.
At least 2 courses outside of Engineering Psychology & Human Factors Engineering

Art History (FAH/FAHS)
Anthropology (ANTH)
Biology (BIO)
Biomedical Engineering (BME)
Chemical & Biological Engineering (CHBE)
Child Study & Human Development (CSHD)
Civic Studies (CVS)
Civil & Environmental Engineering (CEE)
Community Health (CH)
Computer Science/Data Science (CS)
Economics (EC)
Education (ED)
Electrical & Computer Engineering (EE)
Engineering Management (EM)
Engineering Science (ES)
Engineering Psychology/Human Factors Engineering (ENP)
Entrepreneurship (ENT)

Film & Media Studies (FMS)
Linguistics (LING)
Mathematics (MATH)
Mechanical Engineering (ME)
Music (MUS)
Occupational Therapy (OTS)
Peace & Justice Studies (PJS)
Political Science (PS)
Psychology (PSY)
Sociology (SOC)
Science, Technology, and Society (STS)
Studio Art (CER, DIG, DRW, DRWC, DRWM, FLM, FLMC, FNDC, GRA, GRAC, GRAM, MTL, PAI, PAIC, PAIM, PER, PHT, PHTMPRT, PRTC, PRTM, SCP, SMFA, SND, VID, VIDC)
Urban & Environmental Planning (UEP)

BSHFE Course Selection Guidance

Fall Semester, First Year

Course	SHU	SOE Attribute
EN 1 Introduction to Engineering	3	Engineering
MATH 32 Calculus I	4	Mathematics
PHY 11 General Physics I with laboratory	5	Natural Sciences
ENG 1 Expository Writing	3	HASS
Semester Total SHU	15	

Spring Semester, First Year

Course	SHU	SOE Attribute
ES 2 Introduction to Computing in Engineering or or CS 11 Introduction to Computer Science	4	Engineering or Computing
PSY 1 Introduction to Psychology	3	HASS
MATH 34 Calculus II	4	Mathematics
Math or Natural Sciences Elective	3-5	varies with selection
Semester Total SHU	14-16	

Fall Semester, Second Year

Course	SHU	SOE Attribute
ENP 53 Engineering Psychology	3	HASS
Humanities Elective	3-5	HASS
Math or Natural Sciences Elective	3-5	varies with selection
ME 10 Mat. & Manufact.	4	Engineering
ME 20 Mechanics I or ES 5 Statics & Dynamics	3	Engineering
Semester Total SHU	16-20	

Spring Semester, Second Year

Course	SHU	SOE Attribute
ENP 64 Methods for Human Factors Engineering	3	Engineering
ENP 130 Advanced Engineering Psychology	3	HASS
ME 40 Engineering Design I	4	Engineering
Probability & Statistics	3-4	Mathematics
Psychology Elective	3-5	HASS
Semester Total SHU	16-20	

Fall Semester, Third Year

Course	SHU	SOE Attribute
EM 52 Technical & Managerial Communication	3	HASS
Domain Elective	3-5	varies with selection
ME 30 Robotics I or ES 3 Intro. to Elect. Systems w/Lab	4-5	Engineering
Psychology Elective	3-5	HASS
Unrestricted Elective	1-3	varies with selection
Semester Total SHU	14-21	

Spring Semester, Third Year

Course	SHU	SOE Attribute
ENP 161 Human Factors Product Design	3	Engineering
ENP 166 Computer Interface Design or CS 171 Human Computer Interaction	3	varies with selection
Math or Natural Sciences Elective	3-5	varies with selection
Domain Electives	6-10	varies with selection
Semester Total SHU	13-20	

Fall Semester, Fourth Year

Course	SHU	SOE Attribute
Senior Capstone or Domain Elective	3-5	Engineering
ENP 164 Applied Behavioral Statistics	3	Mathematics
ENP Core Elective	3	varies with selection
Unrestricted Elective	3-5	varies with selection
Semester Total SHU	12-18	

Spring Semester, Fourth Year

Course	SHU	SOE Attribute
Senior Capstone or Domain Elective	3-5	varies with selection
CS or HFE Core Elective	3-5	varies with selection
HFE Open Elective	3	varies with selection
Unrestricted Elective	3-5	varies with selection
Semester Total SHU	12-16	