

# Industrial Process Engineering Guidesheet | Fall 2019

## GENERAL ED REQUIREMENTS

### A. Human Cluture, Physical/Nat World

#### Natural Sciences\*\*

CHEM 111

CHEM 112

PHYS 211

PHYS 212

#### History of Civilization

HIST 101 or 102

#### Two Social/Behavioral Sciences\* (2 areas)

ECON 221/222\*\*

#### Three Humanities Courses\* (at least 2 areas)

PHIL 325

### B. Intellectual and Practical Skills

AFCI 101

ENGL 101\*\*

ENGL 102\*\*

COMM 201 or 241

#### Mathematics\*\*

MATH 141

MATH 142

### C. Personal and Social Responsibility

#### Americal Political Institutions (API)

POLI 201, HIST 201 or 202

#### Inter-Curricular Enrichment Program (ICE)

Two approved events in each semester of enrollment

For more information, see ICE Program requirements

#### Three Writing Intensive Courses

(At least one in major) List:

#### One 3-Credit Non-Western Wold Studies Course\*

List Course:

#### Satisfactory Completion of Writing Portfolio

Submitted after 60 hrs, before applying for graduation

or ENGL 201

## MAJOR REQUIREMENTS

### CORE COURSES\*\*

ENCP 101

ENCP 102

ENCP 200

ENCP 260

ENCP 290

ENCP 310

ENCP 316

ENCP 327

ENCP 334

ENCP 360

ENCP 361

ENCP 371

ENCP 380

ENCP 421

ELCT 221

MATH 241

MATH 242

STAT 509

### BUSINESS COMPONENT

BADM 371

BADM 494

### TECHNICAL ELECTIVES\*\*

Any ENCP course (300 or higher not required by major), any CSCI course (145 to 562), any MATH course (518 to 554), STAT 510, any MGMT course (300 or higher not required by major), any BADM course (300 or higher not required by major), any CHEM course 300 or higher or departmental approved course.

### CAPSTONE\*\*

ENCP 498

ENCP 499

\*See next page for list of qualifying courses for listed categories and for information on ICE events.

\*\* must earn a grade of C or better

# Industrial Process Engineering Guidesheet | Fall 2019

## HUMANITIES COURSES

**bolded numbers indicate that course also qualifies as a Non-Western**

**Art History (ARTH):** 105, 106, 206, 312, 335, **397**, 398

**Communications (COMM):** 351, 352, 353, **450**, 455, 462

**English (ENGL):** 281, 282, 283, 284, 285, 288, 289, 290, **291**, 295, 301, 362, **385**, 389, 390, 391, 392, 393, 394, 395, 401, 405, 407, 411, 412, 415, 416, 417, 419, 423, 424, 425, 426, 427, 428, 430, 431, **435**, 449, 474, 491, 494

**Foreign Languages, Literatures & Culture:**

(FREN): 302, **303**, 305, **306**, 307, **388**, 397, 398, 399

(GERM): 303, 305, 395, 397, 398, 399

(SPAN): **303**, 308, 319, **320**, **321**, 340, **380**, **388**, **397**, 399, **426**, **488**, 498

**History (HIST):** All history courses. **NOTE:** If HIST 101 or HIST 102 is used towards History of Civilization requirement, the same course cannot count for the Humanities requirement. Also, if HIST 201 or HIST 202 is used towards the Americal Political Institutions requirement, the same course cannot count for the Humanities requirement

**Honors (HONS):** 101

**Humanities (HUMA):** 107, 201, 202, 211, 301

**Music (MUSC):** 173, **175**, 371, 372, 374, 393

**Philosophy (PHIL):** 102, 211, 302, 303, 304, 311, 312, 350, 390, 399

**Religion (RELG):** 101, **103**, 301, 302, 390, 399

**Theater (THEA):** 161, 361, 362

## SOCIAL AND BEHAVIORAL SCIENCES COURSES

Any of the following disciplines:

**Psychology (PSYC)**

**Sociology (SOCY)** (see below for non-western courses)

**Anthropology (ANTH)** (see below for non-western courses)

**Political Science (POLI)** (see below for non-western courses)

**Geography (GEOG)** (see below for non-western courses)

**Honors (HONS):** 101

### NON-WESTERN qualifying courses

**Art History (ARTH):** 397

**Anthropology (ANTH):** 102, 315, 352, 490

**Communications (COMM):** 450

**English (ENGL):** 291, 385, 435

**Foreign Languages, Literatures & Culture:**

(FREN): 303, 306, 388

(SPAN): 303, 320, 321, 380, 388, 397, 426, 488

**Geography (GEOG):** 102

**History (HIST):** 345, 346, 347, 361, 362, 366, 423, 447, 492

**Music (MUSC):** 175

**Political Science (POLI):** 101, 103, 330, 344, 487, 488, 492

**Religion (RELG):** 103

**Sociology (SOCY):** 310

### CRITICAL INQUIRY

Freshman must take Critical Inquiry (AFCI 101) in their first semester of enrollment at USC Aiken. Student in degree programs which require more than 16 credit hours in the first semester of enrollment may complete Critical Inquiry during their second academic semester.

## INTER-CURRICULAR ENRICHMENT (ICE)

**Undergraduate** students will attend at least 2 ICE events per academic semester up to a total of 16 over their 4-year college career. Freshman Convocation will constitute the first ICE event for entering freshman.

**Transfer** students will complete 2 ICE events for each academic semester remaining before graduation.

**Part-time** students will complete 2 ICE events for every 15 hours of completed course credit.

Students participating in **Study Abroad** programs may earn 2 ICE events while overseas by participating in pre-approved inter-curricular academic events.

# INDUSTRIAL PROCESS ENGINEERING CURRICULUM SHEET | Fall 2019

## FRESHMAN (35)

<b>FALL</b>			<b>SPRING</b>		
ENCP 101	Introduction to Engineering I	3	ENCP 102	Introduction to Engineering II	3
CHEM 111	General Chemistry I & Lab	4	CHEM 112	General Chemistry II & Lab	4
ENGL 101	Critical Reading & Comp.	3	ENGL 102	Rhetoric & Composition	3
MATH 141	Calculus I	4	MATH 142	Calculus II	4
AFCI 101	Critical Inquiry	1	ECON 221/222	Micro/Macro Economics	3
ELECTIVE	Humanities	<u>3</u>			
		18			<u>17</u>

## SOPHOMORE (34)

<b>FALL</b>			<b>SPRING</b>		
ENCP 200	Statics	3	ENCP 290	Thermodynamics Fund.	3
ELCT 221	Circuits	3	ENCP 260	Intro. to Mechanics of Solids	3
MATH 241	Vector Calculus	4	MATH 242	Elem. Differential Equations	4
PHYS 211	Essentials of Physics I & lab	4	PHYS 212	Essentials of Physics II & lab	4
COMM 201/241	Public Speaking	<u>3</u>	STAT 509	Statistics for Engineers	<u>3</u>
		17			17

## JUNIOR (30)

<b>FALL</b>			<b>SPRING</b>		
ENCP 361	Instrumentation, Meas, Stats	3	ENCP 334	Quality Control & Planning	3
ENCP 371	Engineering Materials	3	ENCP 327	Design of Mech. Elements	3
ENCP 360	Fluids	3	ENCP 310	Dynamics	3
BADM 371	Principles of Management	3	ELECTIVE	History	3
ELECTIVE	Humanities	<u>3</u>	ELECTIVE	API	<u>3</u>
		15			15

## SENIOR (30)

<b>FALL</b>			<b>SPRING</b>		
ENCP 380	Systems Engineering	3	ENCP 421	Engineering Economics	3
ENCP 498	Senior Capstone I	3	ENCP 499	Senior Capstone II	3
ENCP 316	Control Systems	3	PHIL 325	Engineering Ethics	3
TECH ELEC	Technical Elective	3	TECH ELEC	Technical Elective	3
ELECTIVE	Soc/Behav	<u>3</u>	BADM 494	Project Management	<u>3</u>
		15			15

### ADDITIONAL REQUIREMENTS

- Three Writing Intensive Courses (at least one in major)
- One 3-Credit Non-Western World Studies Course
- Satisfactory Completion of Writing Portfolio (or ENGL 201)

### TECHNICAL ELECTIVES

Any ENCP course (300 or higher not required by major), any CSCI course (145 to 562), any MATH course (518 to 554), any MGMT course (300 or higher not required by major), any BADM course (300 or higher not required by major), any CHEM course 300 or higher or departmental approved course

# Industrial Process Engineering Curriculum 2019

## MATH 141 Placement Pre-/Co-Requisite Flowchart

