# Academic Checksheet

COLLEGE OF ENGINEERING
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

# Chemical Engineering
## 2017/2018 (130 Hours)

**Student A#** | **Student Name (Last, First MI)**

| Semester, Transfer or AP | Grade | Course Number | Cr Hrs | Course Title | Prerequisites, Corequisites and/or Prerequisites with Concurrency | Offered: F=Fall S=Spr M=Sum |
|---|---|---|---|---|---|---|
| **English - 6 hours** | | | | | | |
| | | EH 101 | 3 | College Writing I | Placement | FSM |
| | | EH 102 | 3 | College Writing II | EH 101 | FSM |
| **Mathematics - 15 hours** | | | | | | |
| | | MA 171 | 4 | Calculus A | MA 113 or Level III Placement | FSM |
| | | MA 172 | 4 | Calculus B | MA 171 | FSM |
| | | MA 201 | 4 | Calculus C | MA 172 | FSM |
| | | MA 238 | 3 | Applied Differential Equations | Prereq w/Con: MA 201 | FSM |
| **Chemistry - 18 hours** | | | | | | |
| | | CH 121 | 3 | General Chemistry I | Plcmt or Prereq w/Con: MA 113 | FSM |
| | | CH 125 | 1 | General Chemistry Lab I | Prereq w/Con: CH 121 | FSM |
| | | CH 123 | 3 | General Chemistry II | CH 121; Prereq w/Con: CH 126 | FSM |
| | | CH 126 | 1 | General Chemistry Lab II | CH 125, Prereq w/Con: CH 123 | FSM |
| | | CH 331 | 3 | Organic Chemistry I | CH 123 | FSM |
| | | CH 335 | 1 | Organic Chemistry Lab I | CH 126, Prereq w/Con: CH 331 | FSM |
| | | CH 332 | 3 | Organic Chemistry II | CH 331 | FSM |
| | | CH 341 | 3 | Physical Chemistry I | CH 123, MA 201, PH 112, PH 115 | F |
| **Physics - 8 hours** | | | | | | |
| | | PH 111 | 3 | General Physics w/Calculus I | MA 171; Coreq: 114 | FSM |
| | | PH 114 | 1 | General Physics Lab I | Prereq w/Con: PH 111 | FSM |
| | | PH 112 | 3 | General Physics w/Calculus II | MA 172, PH 111, PH 114; Coreq: 115 | FSM |
| | | PH 115 | 1 | General Physics Lab II | Coreq: PH 112 | FSM |
| **Biology - 3 hours** | | | | | | |
| | | BYS 311 | 3 | Intro to Molecular Biological Systems | CH 331 | S |
| **History, Social & Behavioral Sciences, Humaities & Fine Arts - 18 hours** | | | | | | |
| | | | 3 | History | HY 103, HY 104, HY 221, or HY 222 | FSM |
| | | | 3 | Literature | EH 207 or EH 208 | FSM |
| | | | 3 | Fine Art | ARH 100, ARH 101, ARH 103, TH 122, MU 100, or ARS 160 | FSM |
| | | | 3 | Social & Behavioral Science | For more information on HSBS/HFA Requirements: http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms | FSM |
| | | | 3 | Sequence Course (HY or EH) | | FSM |
| | | | 3 | HSBS/HFA | | FSM |
| **First-Year Engineering - 4 hours** | | | | | | |
| | | FYE 101 | 1 | First-Year Experience for Engineers | None | FS |
| | | ENG 101 | 3 | Computing for Engineers | Prereq w/Con: MA 171 | SM |
| **Chemical Engineering - 49 hours** | | | | | | |
| | | CHE 201 | 2 | Intro to Chemical Engineering Processes | ENG 101; Prereq w/Con: CH 123 | F |
| | | EE 213 | 3 | Electrical Circuit Analysis I | Prereq w/Con: PH 112, MA 201 | FSM |
| | | CHE 244 | 3 | Intro to Chemical Engineering Systems | PH 111, CH 123, CHE 201, MA 201 | S |
| | | MAE 271 | 3 | Statics | ENG 101, PH 111; Prereq w/Con: MA 201 | FSM |
| | | CHE 294 | 3 | Nature & Properties of Materials | CH 121, PH 111 | F |
| | | CHE 295 | 1 | Nature & Properties of Materials Lab | Coreq: CHE 294 | F |
| | | CHE 342 | 3 | Transport Phenomena | CHE 341, CHE 244; Prereq w/Con: MAE 310 | S |
| | | CHE 344 | 3 | Chemical Engineering Thermodynamics | CH 341, CHE 244 | S |
| | | MAE 310 | 3 | Fluid Mechanics I | MA 238, MAE/CE 271 | FSM |
| | | CHE 347 | 3 | Quantitative Modeling for Chemical Engrs | CHE 244, MA 238 | F |
| | | CHE 439 | 2 | Unit Operations Lab I | CHE 295; Prereq w/Con: CHE 441, CHE 446 | F |
| | | CHE 440 | 2 | Unit Operations Lab II | CHE 439, CHE 441, CHE 443 | S |
| | | CHE 441 | 3 | Chemical Kinetics & Reactor Design | CHE 344, CHE 347 | F |
| | | CHE 443 | 3 | Mass Transfer Operations | CHE 342, CHE 344, MAE 310 | F |
| | | CHE 445 | 3 | Chemical Process Control | CHE 441, CHE 446 | S |
| | | CHE 446 | 3 | Analysis & Design of Transport Equipment | CHE 342; Prereq w/Con: CHE 443 | F |
| | | CHE 448 | 3 | Chemical Engineering Design | CHE 441, CHE 443, CHE 446; Prereq w/Con:CHE 445 | S |
| | | CHE 485 | 3 | Process Safety and Toxicology | CHE 441, CHE 443, CHE 446 | S |
| **Chemical Engineering Electives - 9 hours** | | | | | | |
| Select One Con: Biotech | | CH 361 | 3 | General Biochemistry I | BYS 311, CH 332, CH 335 | FSM |
| | | CHE 460 | 3 | Introduction to Bioprocess Engineering | CH 361 | F |
| | | CHE 461 | 3 | Bioseparations | CHE 460 | S |
| Materials | | CH 440 | 3 | Polymer Synthesis & Characterization | CH 332 | F |
| | | CHE 494 | 3 | Applied Materials Engineering | CHE 294, CHE 344 | S |
| | | CHE 495 | 3 | Polymer Engineering | CH 341, CH 440 | F |

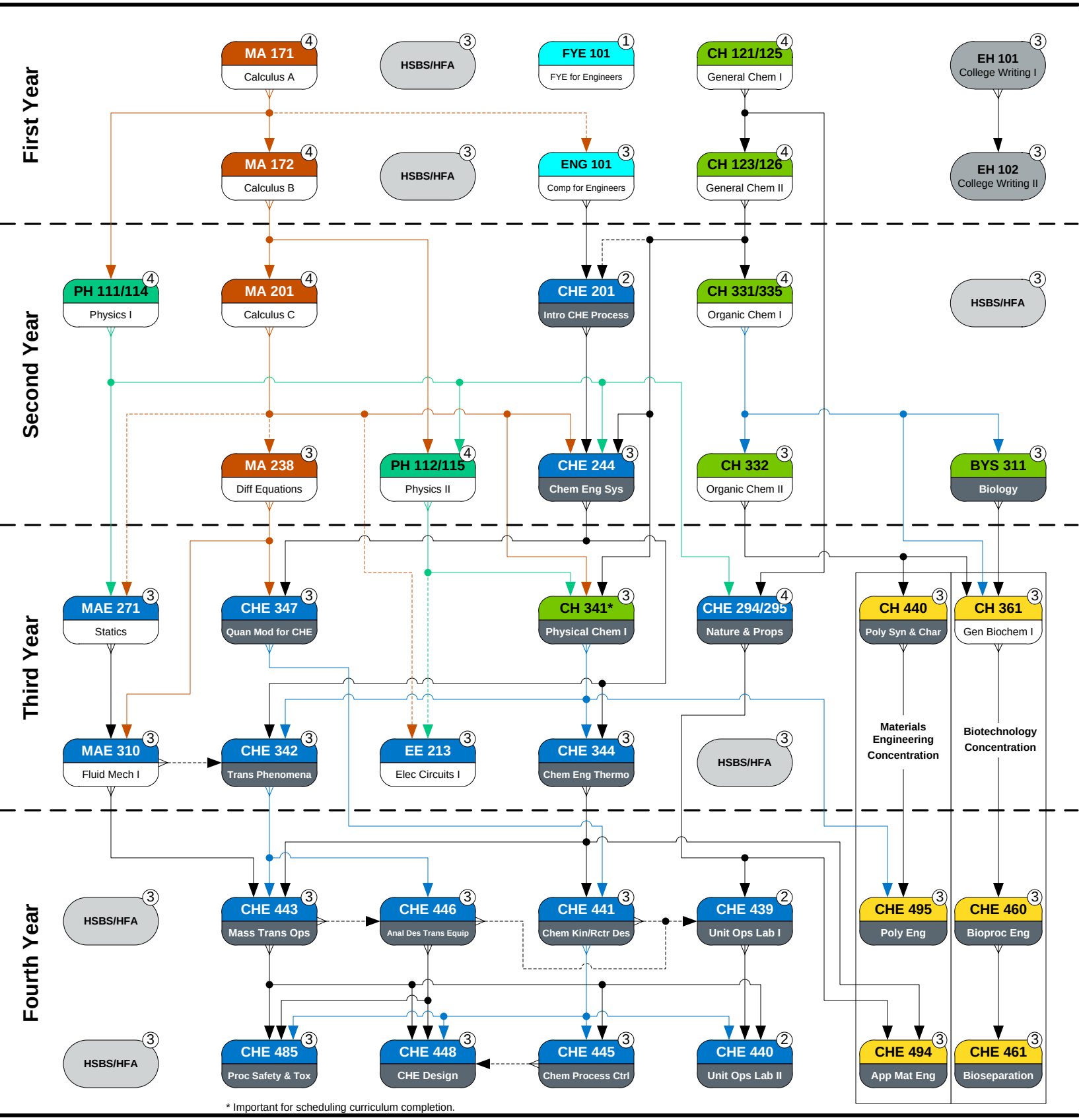
***All prerequisite classes must be completed with a "C-" or higher grade.***
***The Catalog is the final authority for all degree requirements.***

Updated: 5/25/2017

# Academic Flowchart

COLLEGE OF ENGINEERING
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

# Chemical Engineering
## 2017/2018 (130 Hours)




* Important for scheduling curriculum completion.

**Legend** Updated: 6/1/17

- Mathematics
- Physics
- Chemistry / Biology
- First Year Engineering
- Chemical Engineering Option
- Concentration Electives
- Freshman Comp
- History, Social & Behavioral Science Humanity & Fine Art
- Offered only in semester listed
- (3) Credit Hours
- → Prerequisite
- ⇢ Prereq w/concurrency

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# Chemical Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021*

| | Fall 2017 | Anticipated Sections | Spring 2018 | Anticipated Sections | Fall 2018 | Spring 2019 | Fall 2019 | Spring 2020 | Fall 2020 | Spring 2021 |
|---|---|---|---|---|---|---|---|---|---|---|
| **CHE 201** Intro to Chem Eng Pro | N | 0 | N | 0 | Y | Y | Y | Y | Y | Y |
| **CHE 244** Intro to CHE Systems | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 294** Nature/Prop of Materials | Y | 1 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 295** Nature/Prop of Matrls Lab | Y | 3 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 342** Transport Phenomena | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 344** Chem Eng Thermo | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 347** Quantitative Modeling | Y | 1 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 439** Unit Operations I | Y | 2 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 440** Unit Operations II | N | 0 | Y | 3 | N | Y | N | Y | N | Y |
| **CHE 441** Chem Kinetics/Reactor Des | Y | 1 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 443** Mass Transfer Operations | Y | 1 | N | 0 | Y | N | Y | N | Y | N |

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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CHE 445**<br>Chemical Process Control | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 446**<br>Analy/Des of Trans Equip | Y | 1 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 448**<br>Chemical Eng Design | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 460**<br>Intro to Bioprocess Eng | Y | 1 | N | 0 | Y | N | Y | N | Y | N |
| **CHE 461**<br>Bioseparations | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 485**<br>Process Safety/Toxicology | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 494**<br>Applied Materials Engineering | N | 0 | Y | 1 | N | Y | N | Y | N | Y |
| **CHE 495**<br>Polymer Engineering | Y | 1 | N | 0 | Y | N | Y | N | Y | N |

**Legend**

| | |
|---|---|
| Y | Course will be offered in designated term. |
| E | Course is expected to be offered in designated term, but availability will be determined by faculty availability and budget. |
| N | Course will not be offered in designated term. |
| D | Course may be made available given appropriate demand or interest. |

* UAH College of Engineering will make every effort to adhere to the class plan schedule, but it reserves the right to make necessary adjustments based on budget and faculty availability.