

## CHEMICAL ENGINEERING: Chemical Engineering, Chemistry, and Technical Elective Guide

**CHEMICAL ENGINEERING ELECTIVES** – 3 s.h. required in the CHE Practice Concentration; 3 s.h. required in the CHE Biomolecular Concentration

In general, 3000-level or 4000-level Chemical Engineering (CHE) and Petroleum Engineering (PTE) courses *that are not a requirement of the CHE curriculum* are acceptable as long as they align with the CHE curriculum and your career goals. Before registering for a course, make sure you review and meet all course pre-requisites.

**CHEMISTRY ELECTIVES** – 6 s.h. required in the CHE Practice Concentration; 3 s.h. required in the CHE Research & Development Concentration

A Chemical Engineering Elective may substitute for a Chemistry Elective. In general, 3000-level or 4000-level Biochemistry (BCH) and Chemistry (CH) courses *that are not a requirement of the CHE curriculum* are acceptable as long as they align with the CHE curriculum and your career goals. Below is a table of pre-approved chemistry electives. If the course in which you are interested is not on the list below, obtain the ChE Undergraduate Coordinator's approval before registering for the course. In addition, make sure you review and meet all course pre-requisites.

Course	Title of Approved Chemistry Elective
CHE XXXX	3000-level and 4000-level CHE courses <i>that are not a requirement of the CHE curriculum</i>
PTE XXXX	3000-level and 4000-level PTE courses – could be used for a minor in Petroleum Engineering: <a href="https://www.che.msstate.edu/pte/minor/">https://www.che.msstate.edu/pte/minor/</a>
BCH 4013	Principles of Biochemistry
CH 3213	Inorganic Chemistry
CH 4213	Adv. Inorganic Chemistry
CH 4303	Environmental Chemistry
CH 4413	Thermodynamics & Kinetics
CH 4423	Quantum Mechanics

**TECHNICAL ELECTIVES** – 6 s.h. required in the CHE Practice Concentration

A Chemical Engineering or Chemistry Elective may substitute for a Technical Elective. There are many STEM courses at the 3000-level and 4000-level that may be used to satisfy this degree requirement, and you should choose a course that supports your career goals and interests. Below is a table of pre-approved technical electives. If the course in which you are interested is not on the list below, obtain the ChE Undergraduate Coordinator's approval before registering for the course. In addition, make sure you review and meet all course pre-requisites.

Course	Title of Approved Technical Elective
CHE XXXX	3000-level and 4000-level CHE courses <i>that are not a requirement of the CHE curriculum</i>
PTE XXXX	3000-level and 4000-level PTE courses – could be used for a minor in Petroleum Engineering: <a href="https://www.che.msstate.edu/pte/minor/">https://www.che.msstate.edu/pte/minor/</a>
BCH XXXX	3000-level and 4000-level Biochemistry courses (see table above)
CH XXXX	3000-level and 4000-level Chemistry courses <i>that are not a requirement of the CHE curriculum</i> (see table above) – could be used for a minor in Chemistry: <a href="https://www.che.msstate.edu/undergrad/minors/">https://www.che.msstate.edu/undergrad/minors/</a>

## CHEMICAL ENGINEERING: Chemical Engineering, Chemistry, and Technical Elective Guide

Course	Title of Approved Technical Elective
ABE XXXX	3000-level and 4000-level Agricultural & Biological Engineering courses
BIO XXXX	3000-level and 4000-level Biology courses
EM 2433	Engineering Mechanics II
EM XXXX	3000-level and 4000-level Engineering Mechanics courses
FNH XXXX	4000-level Food Science, Nutrition & Health courses – could be used for a minor in Food Science: <a href="https://www.fsnhp.msstate.edu/students/food.php">https://www.fsnhp.msstate.edu/students/food.php</a>
GE 2713	Intro to Engineering Public Policy – could be used for a minor in Global Engineering Leadership: <a href="https://www.bagley.msstate.edu/gel-minor/">https://www.bagley.msstate.edu/gel-minor/</a>
GE 3011	Engr Entrepreneur Sem (must be taken three semesters in order to satisfy 3 s.h. technical elective requirement) – could be used for a minor in Global Engineering Leadership: <a href="https://www.bagley.msstate.edu/gel-minor/">https://www.bagley.msstate.edu/gel-minor/</a>
GE 3813	Challenges Global Engineering – could be used for a minor in Global Engineering Leadership: <a href="https://www.bagley.msstate.edu/gel-minor/">https://www.bagley.msstate.edu/gel-minor/</a>
GG XXXX	3000-level and 4000-level Geology courses – could be used for a minor in Geosciences: <a href="https://www.geosciences.msstate.edu/undergraduate/geology/">https://www.geosciences.msstate.edu/undergraduate/geology/</a>
IE XXXX	3000-level and 4000-level Industrial Engineering courses <i>that are not a requirement of the CHE curriculum</i> – could be used for a minor in Industrial Engineering: <a href="https://www.ise.msstate.edu/academics/undergraduate/minor-in-industrial-engineering/">https://www.ise.msstate.edu/academics/undergraduate/minor-in-industrial-engineering/</a>
MA XXXX	3000-level and 4000-level Mathematics courses <i>that are not a requirement of the CHE curriculum</i> – could be used for a minor in Mathematics: <a href="https://www.math.msstate.edu/math-minor">https://www.math.msstate.edu/math-minor</a>
SBP XXXX	3000-level and 4000-level Sustainable Bioproducts courses

Note that a course may only fulfill one type of elective in your CHE B.S. degree requirements. For example, a CHE elective course, if applied to a Technical Elective slot in your CAPP Compliances, cannot also fill a Chemical Engineering Elective slot. A separate course would be needed for the Chemical Engineering Elective slot. If you have any questions about elective requirements and courses, please consult with your assigned faculty advisor.