

CHEMICAL ENGINEERING

BACHELOR OF SCIENCE

DEPARTMENT OF CHEMICAL ENGINEERING



4-YEAR ADVISING SCHEME

Students seeking the Bachelor of Science in Chemical Engineering must complete a minimum of 120 credit hours comprised of core courses in chemical engineering (44 credits), science, computer science, engineering, and mathematics courses (54 credits), technical electives (6 credits), social science and humanities courses (6 credits), including an African American Studies elective (3 credits), and general curriculum courses (7 credits).

FALL SEMESTER 1

Number	Course Title	Credits
EGPP 101	Introduction to Engineering	2
ENGW--	English First-Year Writing (I)	3
MATH 156	Calculus I	4
CHEM 003	General Chemistry I Lecture	4
CHEM 005	General Chemistry I Lab	1
CHEG 800	Chemical Engineering Seminar	
--	Social Science/Humanities/Afro Elective	3
Total Credits		17

SPRING SEMESTER 1

Number	Course Title	Credits
CHEG 102	Intro to ChE Design	3
ENGW--	English First-Year Writing (2)	3
MATH 157	Calculus II	4
CHEM 004	General Chemistry II Lecture	4
--	Social Science/Humanities/Afro Elective	3
Total Credits		17

FALL SEMESTER 2

Number	Course Title	Credits
CHEG 201	ChE Material Balances	3
CSCI 165	Scientific Computing for Engineers	3
MATH 158	Calculus III	4
CHEM 141	Organic Chemistry Lecture I	3
PHYS 013	Physics I Lecture (Science and Engineering)	3
PHYS 023	Physics I Lab (Science and Engineering)	1
Total Credits		17

SPRING SEMESTER 2

Number	Course Title	Credits
MATH 159	Differential Equations	4
CHEG 202	Energy Balances	3
CHEM 142	Organic Chemistry Lecture II	3
CHEM 145	Organic Chemistry Lab	3
PHYS 014	Physics II Lecture (Science and Engineering)	3
Total Credits		16

FALL SEMESTER 3

Number	Course Title	Credits
CHEG 303	ChE Thermodynamics	3
CHEG 301	Fluid Mechanics	3
CHEM 171	Physical Chemistry Lecture I	3
CHEM 173	Physical Chemistry Lab	2
EECE 310	Principles of Electronics	2
HHPL --	Physical Education	1
Total Credits		14

SPRING SEMESTER 3

Number	Course Title	Credits
CHEG 302	Heat Transfer	3
CHEG 306	ChE Analysis	3
CHEM 172	Physical Chemistry II Lecture	3
--	Social Science/Humanities/Afro Elective	3
--	Technical Elective (STEM)	3
Total Credits		15

FALL SEMESTER 4

Number	Course Title	Credits
CHEG 401	Mass Transfer/Separation Processes	3
CHEG 403	Chemical Reaction Engineering (Kinetics)	3
CHEG 413	ChE Laboratory	3
CHEG 407	Process Design I	3
Total Credits		12

SPRING SEMESTER 4

Number	Course Title	Credits
CHEG 402	Process Control	3
CHEG 414	Process Design II	3
CHEG--	ChE Elective	3
--	Technical Elective (ChE Engineering)	3
Total Credits		12

Total Credits: 120

More Information :

The 4-Year Advising Scheme is a guide for students to successfully complete the program in four years of study. It is not a substitution for academic advising. Students are expected to check-in with their academic advisor every semester.

The prerequisite structure for courses and technical elective options are available in the program handbook.

Courses may not be offered in semesters in which they do not appear listed on the scheme.

DEPARTMENT OF CHEMICAL ENGINEERING

Lewis K. Downing Hall, 2300 Sixth Street, NW, Suite 1009, Washington, DC 20059

Phone: 202.806.6624

Email: cea.che@howard.edu

www.cea.howard.edu