CHE 133 General Chemistry Laboratory I
Designated to familiarize students with (1) some chemical and physical properties of substances, (2) techniques of quantitative chemistry, and (3) scientific methodology. Four hours of laboratory and discussion per week. CHE 133 may not be taken for credit in addition to CHE 143, and CHE 134 may not be taken for credit in addition to CHE 141 or 144.
Pre-requisites: CHE 123 or CHE 131 or 139 or 198
1 credit

CHE 134 General Chemistry Laboratory II
Designed to familiarize students with (1) some chemical and physical properties of substances, (2) techniques of quantitative chemistry, and (3) scientific methodology. Four hours of laboratory and discussion per week. CHE 133 may not be taken for credit in addition to CHE 143, and CHE 134 may not be taken for credit in addition to CHE 144 or 199.
Pre-requisites: CHE 133
Pre-or Corequisites: CHE 132 or 198
1 credit

CHE 141-E Honors Chemistry I
The topics covered in this sequence are similar to those in CHE 131, 132, but draw more on students' previous background in science and mathematics in order to present the material in a more quantitative manner. Recommended for students with strong backgrounds in mathematics and science, especially chemistry and physics. Three lecture hours and one 80-minute workshop per week. CHE 141 may not be taken for credit in addition to CHE 131, and CHE 142 may not be taken for credit in addition to CHE 132 or 198. Priority given to students in the University's honors programs.
Pre-requisite: High school chemistry; level 5 on the mathematics placement examination or coregistration in MAT 125 or higher calculus course or AMS 151
4 credits

CHE 142-E Honors Chemistry II
The topics covered in this sequence are similar to those in CHE 131, 132, but draw more on students' previous background in science and mathematics in order to present the material in a more quantitative manner. Recommended for students with strong backgrounds in mathematics and science, especially chemistry and physics. Three lecture hours and one 80-minute workshop per week. CHE 141 may not be taken for credit in addition to CHE 131, and CHE 142 may not be taken for credit in addition to CHE 132 or 198. Priority given to students in the University's honors programs.
Pre-requisite: C or higher in CHE 141
Pre-or Corequisite: MAT 126 or higher or AMS 161
4 credits

CHE 143 Honors Chemistry Laboratory I
Laboratory program similar in content to CHE 133, 134 but conducted at a more intensive and stimulating level. Four hours of laboratory and discussion per week. CHE 143 may not be taken for credit in addition to CHE 133, and CHE 144 may not be taken for credit in addition to CHE 134 or 199. Priority given to students in the University's honors programs.
Corequisite: CHE 141
1 credit

CHE 144 Honors Chemistry Laboratory II
Laboratory program similar in content to CHE 133, 134 but conducted at a more intensive and stimulating level. Four hours of laboratory and discussion per week. CHE 143 may not be taken for credit in addition to CHE 133, and CHE 144 may not be taken for credit in addition to CHE 134 or 199. Priority given to students in the University's honors programs.
Pre-requisite: CHE 143
Corequisite: CHE 142
1 credit

CHE 198-E Chemistry for Engineers
A quantitative introduction to chemistry (stoichiometry, bonding, states of matter, equilibrium) with emphasis on topics of interest to students in engineer-
CHE 341 Organic Chemistry Honors Seminar I
Advanced topics in organic chemistry within the scope but beyond the reach of CHE 321 (Organic Chemistry II) will be discussed along with topics in contemporary research. Permission to enroll will be granted to students who have demonstrated excellence in CHE 321. Prerequisites: CHE 321; permission of instructor. Corequisite: CHE 321. 1 credit

CHE 342 Organic Chemistry Honors Seminar II
Advanced topics in organic chemistry within the scope but beyond the reach of CHE 322 (Organic Chemistry IIB) will be discussed along with topics in CHE 331. Prerequisites: CHE 321 or CHE 312; permission of instructor. Corequisite: CHE 321. 1 credit

CHE 343 Organic Chemistry Research Practicum I
Work with a faculty member as an assistant in one of the faculty member’s regularly scheduled classes. The student is required to attend all the classes, do all the regularly assigned work, and meet with the faculty member at regularly scheduled times to discuss the intellectual and pedagogical matters relating to the course. Students may participate only in courses in which they have excelled. Prerequisite: Permission of department. 3 credits, S/U grading.

CHE 347 Undergraduate Teaching Practicum I
Work with a faculty member as an assistant in one of the faculty member’s regularly scheduled classes.
Students assume greater responsibility in such areas as leading discussions and analyzing results of tests that have already been graded. Students may participate only in courses in which they have excelled. The course in which the student is permitted to work as a teaching assistant must be different from the course in which he or she previously served.

Prerequisite: Permission of department
3 credits, S/U grading

CHE 477 Undergraduate Teaching Practicum III
Work with a faculty member as an assistant in one of the faculty member's regularly scheduled classes. Students may participate only in courses in which they have excelled. May be repeated.
Prerequisites: CHE 476; permission of instructor and department
S/U grading

CHE 482 Senior Laboratory Projects in Chemistry
Laboratory projects, some to be chosen by the student, primarily in the areas of organic, inorganic, and biological chemistry. There are opportunities to learn specialized skills useful for professional employment in quality control, research, or development.
Prerequisites: CHE 375, 384, and 385
2 credits

CHE 487 Research in Chemistry
Students pursue research or tutorial study in specialized areas of chemistry. May be repeated.
Prerequisites: Permission of instructor and department
0-6 credits

CHE 488 Internship
Research participation in off-campus laboratories. Students are required to submit to the department a proposal at the time of registration and a research report at the end of the semester. May be repeated up to a limit of 12 credits.
Prerequisites: CHE 384; permission of instructor and department
0-6 credits, S/U grading

CHE 490 Current Trends in Biological Chemistry
A discussion of current topics of research and methodology in modern biological chemistry. The course includes directed readings, attendance, and discussion at seminars presented by speakers from various academic and industrial institutions. May be repeated.
Prerequisite: CHE 322 or 326 (or the former CHE 332)
Pre- or Corequisite: CHE 301 or 312
1 credit

CHE 495, 496 Senior Research
First course of a two-semester research program to be carried out under the supervision of a staff member. The results of this work are to be submitted to the department in the form of a senior research report. The student is given an oral examination in May by a faculty committee consisting of the student’s supervisor and three other faculty members. Students receive only one grade upon completion of the sequence CHE 495-496.
Prerequisite: U4 standing; permission of instructor and department
3 credits