**Program of undergrade student courses of Department of Chemistry**

For 104 school year

101.2.17 course committeemeeting

101.03.23 dept main meeting permitt

104.09.06 dept main meeting permitt

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (一) common course of education ministry【28 credit points】 | | | | | | | | | | | | |
| Language common course (10 credit) | | | | Core common course (12-16 credit) | | | | | | others | | |
|  | Chinese(一) (2,half)、Chinese(二) (2,half) | | |  | 1.Art & Beauty  2.philosophy & ethic thought  3.citizen & social research  4.History & Culture  5.Mathematica & Science thought  6.Science & Life | | | | Each of the 6 field take 1 course at least。 |  | | physical education (6 necessary, 2 optional) |
|  | English(一) (2,half)、English(二) (2,half) | | |  | |  |
|  | English(三) (2,half) | | |
|  | | | |
| Common courses (2-6 credit) | | | |
| Not included in core common courses  (take 3 courses) | | | |
| (二) prescribed courses【57 credit】 | | | | | | | | | | | | |
| freshman | | sophomore | | | | junior | | | | | senior | |
|  | General chemistry(3,3) |  | Organic Chemistry(4,4) | | |  | | Inorganic Chemistry(3,3) | | |  |  |
|  | General Physics(3,3) |  | Organic Chemistry laboratory(1,1) | | |  | | Physical Chemistry(3,3) | | |  |  |
|  | General Chemistry Laboratory(1,1) |  | Analytic Chemistry(3,3) | | |  | | Physical Chemistry Laboratory(1,1) | | |  |  |
|  | General Physics Laboratory(1,1) |  | Analytic Chemistry Laboratory(1,1) | | |  | |  | | |  |  |
|  | Calculus(3,3) |  | Physical Chemistry(0,3) | | |  | |  | | |  |  |
| (三) optional courses【18 credit】(courses will change when it opens) | | | | | | | | | | | | |
| freshman | | sophomore | | | | | junior | | | | senior | |
| C | Scientific & Technical Japanese(I)( 2) | I | Chemical Application of Group Theory(2) | | | | A | Instrumental Analysis(2,2) | | | A | Instrumental Analysis Laboratory(1,1) |
| C | Scientific & Technical Japanese (II)( 2) | O | Organic Spectroscopy(2) | | | | I | Inorganic Chemistry laboratory(2) | | | A | Special topics of analytical chemistry(3) |
|  |  | P | Mathematics for Chemistry(2) | | | | O | Topics in organic chemistry(2) | | | A | Environmental Chemistry(3) |
|  |  |  |  | | | | O | Biochemistry(3) | | | I | Topics of inorganic chemistry(2) |
|  |  |  |  | | | | O | Topics in biochemistry(3) | | | I | Coordination chemistry(2) |
|  |  |  |  | | | | C | Polymer chemistry(3) | | | I | Photochemistry(3) |
|  |  |  |  | | | | C | Industrial chemistry(3) | | | O | Topic of organic chemistry(3) |
|  |  |  |  | | | | C | Topics in industrial chemistry(3) | | | O | Organic synthesis(2) |
|  |  |  |  | | | | C | Materials and Methods in teaching chemistry laboratory (1,1) | | | O | Organic reaction mechanism(2) |
|  |  |  |  | | | |  |  | | | I+O | Organicmetallic chemistry(2) |
|  |  |  |  | | | |  |  | | | O | Advanced biochemistry(I)(3) |
|  |  |  |  | | | |  |  | | | O | Advanced biochemistry (II)(3) |
|  |  |  |  | | | |  |  | | | P | Special Topics in Physical chemistry(3) |
|  |  |  |  | | | |  |  | | | P | Chemical Kinetics(3) |
|  |  |  |  | | | |  |  | | | P | Quantum Chemistry(3) |
|  |  |  |  | | | |  |  | | | P | Molecular Modeling(3) |
|  |  |  |  | | | |  |  | | | P | Material chemistry(3) |
|  |  |  |  | | | |  |  | | | P | Atomic and Molecular spectroscopy(3) |
|  |  |  |  | | | |  |  | | |  | Seminar(2,2) |
|  |  |  |  | | | |  |  | | |  | Special topics in organic chemistry(2,2) |
|  |  |  |  | | | |  |  | | |  | Special topics in inorganic chemistry( (2,2) |
|  |  |  |  | | | |  |  | | |  | Special topics in physical chemistry( (2,2) |
|  |  |  |  | | | |  |  | | |  | Special topics in analytical chemistry( (2,2) |
|  |  |  |  | | | |  |  | | |  | Special topics in applied chemistry and science education(2,2) |

化學系必選修、教育學分及畢業學分一覽表

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Common courses | Educational course | Prescribed courses | optional | | Least credit for graduated | Least credit (included educational courses) | minor |
| Take chemistry | Free course |
| 28 | 26 | 57 | 18 | 25 | 128 | 154 | 35 |