

**Required Courses for Students Majoring in Atmospheric Sciences**  
**(Space Sciences Section) in the College of Earth Sciences**  
**(applicable to students admitted in Fall 2008)**

| Academic Year Semester Course Titles    | First Year  |                                       | Second Year                                    |   | Third Year                              |                                  | Fourth Year |        |
|---|---|---------------------------------------|--|---|---|----------------------------------|-------------|--------|
|   | Fall  | Spring                                | Fall   | Spring  | Fall                                    | Spring                           | Fall        | Spring |
| Common Required Courses (30)            | Chinese (3)   | Chinese (3)                           | History (2)                                    |   |   |                                  |             |        |
|   | Foreign Languages (3)   | Foreign Languages (3)                 |  |   |   |                                  |             |        |
|   | <p>● 16 credit hours of General Education courses, of which one course must be from each of the following core areas: Humanities &amp; Thought, Physical Science (excluding The Earth), Applied Science, and Social Thought &amp; Phenomenon. The remaining courses may be General Education electives.</p> <p>● One non-credit Physical Education course each semester of their first three academic years, two of which must be Freshman PE I and Freshman PE II.</p> <p>● One non-credit Service Education course in the fall and spring semester of an academic year.</p> |                                       |  |   |   |                                  |             |        |
| Required Courses of the Department (57) | Calculus MA1003 (3)   | Calculus MA1004 (3)                   | Applied Mathematics AP2007 (3)                 | Applied Mathematics AP2008 (3)                  | Modern Physics AP3014 (3)               | Space Physics I AP3044 (3)       |             |        |
|   | General Physics PH1001 (3)  | PH1002 General Physics (3)            | Mechanics I AP2015 (3)                         | Mechanics II AP2016 (3)                         | Intro to Plasma Physics I AP3037 (3)    | Ionospheric Physics I AP3005 (3) |             |        |
|   | General Physics Laboratory PH1003 (1)   | General Physics Laboratory PH1004 (1) | Electricity and Magnetism I AP2017 (3)         | Electricity and Magnetism II AP2018 (3)         | Data Processing and Analysis AP4011 (3) |                                  |             |        |
|   | General Atmospheric Sciences AP1002(1)  | Intro to Space Sciences AP1004 (1)    | Thermodynamics AP2013 (2)                      | Computer Programming and Graphics II AP2050 (2) |   |                                  |             |        |
|   |   | Vector Analysis AP1006 (2)            | Computer Programming and Graphics I AP2049 (2) |   |   |                                  |             |        |
| Total Semester Credit                   | 14  | 16                                    | 13   | 11  | 9                                       | 6                                | 0           | 0      |

| Hours |   |  |  |  |  |  |  |  |
|-------|---|--|--|--|--|--|--|--|
| Notes | <ol style="list-style-type: none"> <li>1. The numerical figures in parentheses refer to course credit hours.</li> <li>2. The minimum number of earned credit hours required for graduation is 138, 87 of which must be from the table of required courses above; students are required to earn a minimum of 25 credit hours of elective courses offered by this Department. A maximum of six credits hours earned from courses offered by departments other than those in the College of Earth Sciences, the College of Sciences, the College of Engineering, and the College of Electrical Engineering and Computer Science may be counted towards the minimum number of credit hours required for graduation.</li> <li>3. Students are also required to take Introduction to Earth System Sciences (2) and meet any of the following additional requirements during their term of study at the University: <ol style="list-style-type: none"> <li>(1) Complete 20 credit hours of courses offered by the non-degree Environment and Earth Sciences Program in the College of Earth Sciences;</li> <li>(2) Complete 20 credit hours of courses offered by the non-degree Earth Sciences Information Program in the College of Earth Sciences;</li> <li>(3) Complete 16 credit hours of courses offered by the College of Earth Sciences, the College of Science, the College of Engineering, and the College of Electrical Engineering and Computer Science.</li> </ol> </li> <li>4. The calculation of semester hours shall not include credit hours earned from General Education courses or History; a maximum of 16 credit hours earned from General Education Courses will be counted towards the minimum number of earned credit hours required for graduation.</li> <li>5. All first-year students are required to take Freshman English.</li> <li>6. Before being permitted to graduate, students must demonstrate their English proficiency by reaching a threshold score in one of the English proficiency tests recognized by the Language Center or by passing two semesters of Remedial English; credit hours thus earned may not be counted toward the minimum number required for a baccalaureate degree (for details, refer to the University's <i>Implementation Procedures for Freshman Foreign Language Courses</i> and <i>Implementation Procedures for Remedial English Courses</i>).</li> <li>7. Students are required to receive a passing grade in Service Education in accordance with the University's <i>Service Education Implementation Procedures</i> before being permitted to graduate.</li> </ol> |  |  |  |  |  |  |  |