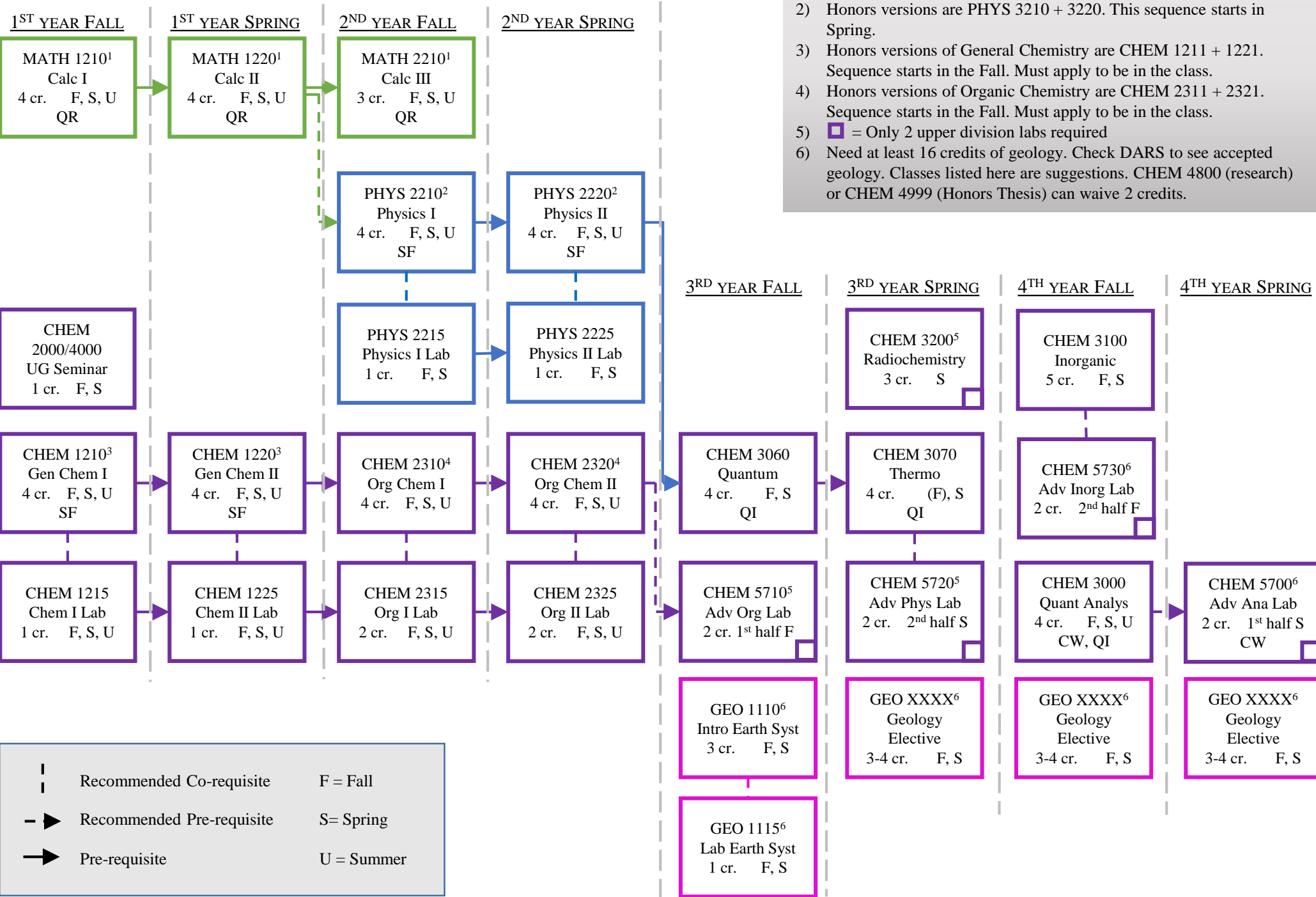


# Chemistry Course Requirements – Geology Emphasis (2016-17)

The Geology emphasis allows students to choose geology electives that interest them, and potentially go into fields related to geoscience, geochemistry, hydrology, and oil and gas exploration.

- 1) Can take whichever calculus sequence is appropriate, including AP Calculus (MATH 1250 & 1260) or Engineering Calculus (MATH 1310 & 1320) Must finish the sequence that was started.
- 2) Honors versions are PHYS 3210 + 3220. This sequence starts in Spring.
- 3) Honors versions of General Chemistry are CHEM 1211 + 1221. Sequence starts in the Fall. Must apply to be in the class.
- 4) Honors versions of Organic Chemistry are CHEM 2311 + 2321. Sequence starts in the Fall. Must apply to be in the class.
- 5)   = Only 2 upper division labs required
- 6) Need at least 16 credits of geology. Check DARS to see accepted geology. Classes listed here are suggestions. CHEM 4800 (research) or CHEM 4999 (Honors Thesis) can waive 2 credits.



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| Geology Emphasis   |       |             |   |              |                     |               |                               |                          |     |     |
|--|-------|-------------|---|--------------|---------------------|---------------|-------------------------------|--------------------------|-----|-----|
| Done?  | Dept. | Number      | Course Name                             | Credit Hours | Gen Ed/<br>Bach Req | Prerequisites |                               | Taught                   |     |     |
|  |       |             |   |              |                     | Chemistry     | Math/Other                    | F                        | S   | U   |
| <b>MATH CLASSES</b>  |       |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | MATH  | 1210        | Calculus I <sup>o</sup>                 | 4            | QR                  |               | MATH 1060 or 1080             | x                        | x   | x   |
| <input type="checkbox"/>   | MATH  | 1220        | Calculus II <sup>o</sup>                | 4            | QR                  |               | MATH 1210                     | x                        | x   | x   |
| <input type="checkbox"/>   | MATH  | 2210        | Calculus III <sup>o</sup>               | 4            | QR                  |               | MATH 1220                     | x                        | x   | x   |
| <b>PHYSICS CLASSES</b>   |       |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | PHYS  | 2210        | Physics for Sci & Eng I <sup>o</sup>    | 4            | SF                  |               | MATH 1210                     | x                        | x   | x   |
| <input type="checkbox"/>   | PHYS  | 2215        | Physics Lab for Sci & Eng I             | 1            |                     |               | MATH 1210                     | x                        |     | x   |
| <input type="checkbox"/>   | PHYS  | 2220        | Physics for Sci & Eng II <sup>o</sup>   | 4            | SF                  |               | MATH 1220 +<br>PHYS 2210      | x                        | x   | x   |
| <input type="checkbox"/>   | PHYS  | 2225        | Physics Lab for Sci & Eng II            | 1            |                     |               | MATH 1220 +<br>PHYS 2210      | x                        |     | x   |
| <b>CHEMISTRY CLASSES</b>   |       |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | CHEM  | 2000/4000   | Undergrad Seminar                       | 1            |                     |               |                               | x                        | x   |     |
| <input type="checkbox"/>   | CHEM  | 1210 + 1215 | General Chemistry I <sup>o</sup> + Lab  | 4 + 1        | SF                  |               | MATH 1050                     | x                        | x   | x   |
| <input type="checkbox"/>   | CHEM  | 1220 + 1225 | General Chemistry II <sup>o</sup> + Lab | 4 + 1        | SF                  |               | CHEM 1210 + 1215              | x                        | x   | x   |
| <input type="checkbox"/>   | CHEM  | 2310 + 2315 | Organic Chemistry I <sup>A</sup> + Lab  | 4 + 2        |                     |               | CHEM 1220 + 1225              | x                        | x   | x   |
| <input type="checkbox"/>   | CHEM  | 2320 + 2325 | Organic Chemistry II <sup>A</sup> + Lab | 4 + 2        |                     |               | CHEM 2310 + 2315              | x                        | x   | x   |
| <input type="checkbox"/>   | CHEM  | 3000        | Quantitative Analysis                   | 4            | QI, CW              |               | CHEM 1220                     | MATH 1220 + 1250         | x   | x   |
| <input type="checkbox"/>   | CHEM  | 3060        | Quantum Chemistry & Spect               | 4            | QI                  |               | CHEM 1220                     | MATH 2210 + PHYS<br>2220 | x   | x   |
| <input type="checkbox"/>   | CHEM  | 3070        | Thermodynamics & Kinetics               | 4            | QI                  |               | CHEM 1220                     | MATH 2210 +<br>PHYS 2220 | (x) | x   |
| <input type="checkbox"/>   | CHEM  | 3100        | Inorganic Chemistry                     | 5            |                     |               | CHEM 1220<br>CHEM 2320 + 3060 | x                        | x   | x   |
| <b>ADVANCED LABS - Choose 2</b>  |       |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | CHEM  | 5700        | Analytical Chemistry Lab                | 2            | CW                  |               | CHEM 3000                     |                          |     | 1st |
| <input type="checkbox"/>   | CHEM  | 5710        | Organic Chemistry Lab                   | 2            |                     |               | CHEM 2320                     |                          |     | 1st |
| <input type="checkbox"/>   | CHEM  | 5720        | Physical Chemistry Lab                  | 2            |                     |               | CHEM 3060, 3070               |                          |     | 2nd |
| <input type="checkbox"/>   | CHEM  | 5730        | Inorganic Chemistry Lab                 | 2            |                     |               | CHEM 3100                     |                          |     | 2nd |
| <input type="checkbox"/>   | CHEM  | 3200        | Radiochemistry                          | 3            |                     |               |                               |                          |     | x   |
| <b>GEOLGY ELECTIVES<sup>†</sup> : Need 16 credit hours of approved electives (see list of approved courses and DARS)</b> |       |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | GEO   | 1110        | Intro Earth Systems                     | 3            |                     |               |                               | x                        | x   |     |
| <input type="checkbox"/>   | GEO   | 1115        | Intro Earth Systems Lab                 | 1            |                     |               |                               | x                        | x   |     |
| <input type="checkbox"/>   | GEO   |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | GEO   |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | GEO   |             |   |              |                     |               |                               |                          |     |     |
| <input type="checkbox"/>   | GEO   |             |   |              |                     |               |                               |                          |     |     |

<sup>o</sup>: Can take whichever calculus sequence is appropriate, including AP Calculus (MATH 1250 & 1260) or Engineering Calculus (MATH 1310 & 1320) Must finish the sequence that was started.

<sup>o</sup>: Honors versions are PHYS 3210 + 3220. This sequence starts in Spring

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<sup>o</sup>: CHEM 4800 (research) or CHEM 4999 (Honors Thesis) can count for up to 2 credit hours of geology elective