

# GEOSYSTEMS ENGINEERING AND HYDROGEOLOGY

## 2022-2024 CATALOG

Suggested Arrangement of Courses for Eight-Semester Program

### FIRST YEAR

| <u>Fall Semester</u>  | <u>Semester Hours</u> | <u>Spring Semester</u>   | <u>Semester Hours</u> |
|---|-----------------------|--|-----------------------|
| CH 301, <i>Principles of Chemistry I</i> . . . . .          | 3                     | CH 302, <i>Principles of Chemistry II</i> . . . . .                      | 3                     |
| GEO 401/303, <i>Introduction to Geology</i> . . . . .       | 4/3                   | PGE 333T, <i>Engineering Communication</i> . . . . .                     | 3                     |
| M 408C, <i>Differential and Integral Calculus</i> . . . . . | 4                     | M 408D, <i>Sequences, Series, &amp; Multivariable Calculus</i> . . . . . | 4                     |
| RHE 306, <i>Rhetoric and Composition</i> . . . . .          | 3                     | PHY 303K, <i>Engineering Physics I</i> . . . . .                         | 3                     |
| UGS 302/303, <i>Undergraduate Studies Course</i> . . . . .  | 3                     | PHY 105M, <i>Laboratory for Physics 303K</i> . . . . .                   | 1                     |
|   |                       | US History Core Class . . . . .  | 3                     |
| TOTAL . . . . .   | 16/17                 | TOTAL . . . . .  | 17                    |

### SECOND YEAR

| <u>Fall Semester</u>   | <u>Semester Hours</u> | <u>Spring Semester</u>                                      | <u>Semester Hours</u> |
|--|-----------------------|---|-----------------------|
| GEO 416K or 416E, <i>Earth Mat or Solid Earth Proc</i> . . . . . | 4                     | E M 306, <i>Statics</i> . . . . .                           | 3                     |
| GEO 416M or 416S, <i>Sed Rocks or Earth Plan Proc</i> . . . . .  | 4                     | PHY 303L, <i>Engineering Physics II</i> . . . . .           | 3                     |
| M 427J, <i>Differential Equations/Linear Algebra</i> . . . . .   | 4                     | PHY 105N, <i>Laboratory for Physics II</i> . . . . .        | 1                     |
| PGE 326, <i>Thermodynamics and Phase Behavior</i> . . . . .      | 3                     | PGE 311, <i>Numerical Methods and Programming</i> . . . . . | 3                     |
| TOTAL . . . . .  | 15                    | PGE 427, <i>Properties of Petroleum Fluids</i> . . . . .    | 4                     |
|  |                       | Visual and Performing Arts Core Class . . . . .             | 3                     |
|  |                       | TOTAL . . . . .   | 17                    |

### THIRD YEAR

| <u>Fall Semester</u>  | <u>Semester Hours</u> | <u>Spring Semester</u>   | <u>Semester Hours</u> |
|---|-----------------------|--|-----------------------|
| PGE 322K, <i>Transport Phenomena</i> . . . . .                      | 3                     | GEO 420K, <i>Introduction to Field and Stratigraphic Methods</i> . . . . .           | 4                     |
| PGE 323K, <i>Reservoir Engineering I Primary Recovery</i> . . . . . | 3                     | PGE 323L, <i>Reservoir Engineering II- Secondary and Tertiary Recovery</i> . . . . . | 3                     |
| PGE 424, <i>Petrophysics</i> . . . . .                              | 4                     | C E 357, <i>Geotechnical Engineering</i> . . . . .                                   | 3                     |
| GEO 476K, <i>Groundwater Hydrology</i> . . . . .                    | 4                     | PGE 358, <i>Principles of Formation Evaluation</i> . . . . .                         | 3                     |
| E M 319, <i>Mechanics of Solids</i> . . . . .                       | 3                     |  |                       |
| TOTAL . . . . .   | 17                    |  |                       |
|   |                       | <u>May Term Session:</u>   |                       |
|   |                       | GOV 310L, <i>American Government</i> . . . . .                                       | 3                     |
|   |                       | TOTAL . . . . .  | 3                     |
|   |                       | TOTAL . . . . .  | 16                    |

### FOURTH YEAR

| <u>Fall Semester</u>  | <u>Semester Hours</u> | <u>Spring Semester</u>  | <u>Semester Hours</u> |
|---|-----------------------|---|-----------------------|
| PGE 365, <i>Resource Economics and Valuation</i> . . . . .    | 3                     | PGE 373L, <i>Geosystems Engineering Design and Analysis</i> . . . . . | 3                     |
| PGE Approved Technical Elective . . . . .                     | 3                     | GEO Approved Technical Elective. . . . .                              | 3                     |
| GEO 376S, <i>Physical Hydrology</i> . . . . .                 | 3                     | Social Science Core Class . . . . .                                   | 3                     |
| GEO 428, <i>Structural Geology</i> . . . . .                  | 4                     | GOV 312L, <i>Issues &amp; Policies in American Gov</i> . . . . .      | 3                     |
| ENG 316L,M,N or P, <i>Masterworks of Literature</i> . . . . . | 3                     | US History Core Class . . . . .                                       | 3                     |
| TOTAL . . . . .   | 16                    | TOTAL . . . . .   | 15                    |