B.S. Geological Engineering Program

AY1: Freshman Year

Semester 1 - 19

- Calculus 1 (3) - MAT11301
- General Physics 1 (2) - PHY21201
- General Physics Lab 1 (1) - PHY21101LAB
- General Chemistry 1 (3) - CHE11301
- General Chemistry Lab 1 (1) - CHE11101LAB
- Foundations in Engineering 1 (+ Lab) (2) - ELE31201
- Introduction to Oil and Gas Industry (2) - PET21201
- Physical Education 1 (1*) (0) - PED11101
- Political economics of Marxism and Leninism (2) - SOC01202
- Philosophy of Marxism and Leninism (3) - SOC01301
- English preparation (120 hrs.*) (0) - ENG41000

Semester 2 - 19

- Calculus 2 (3) - MAT11302
- General Physics 2 (2) - PHY21202
- General Physics Lab 2 (1) - PHY21102LAB
- Foundations in Engineering 2 (+ Lab) (3) - INC31301
- Scientific socialism (2) - SOC01203
- History of Vietnamese communist party (2) - SOC01205
- Military Education (165 hrs*) (0) - MIE01101
- Physical Education 2 (1*) (0) - PED11102
- Career Orientation Field Trip (1) - PET11105
- Ho Chi Minh's Ideology (2) - SOC01204
- English 1 (3) - ENG41301

AY2: Sophomore Year

Semester 3 - 22

- Calculus 3 (2) - MAT12203
- General Chemistry 2 (+Lab) – CHE12303 (3) — CHE11301
- Thermodynamics (3) - MEC32301
- Electric Circuit Analysis (+Lab) (2) – ELE32203 — MATH11301
- Physical Geology (3) – GEO12302
- Mineralogy (+Lab) (3) – GEO12303
- Fundamentals of Engineering Geology and Hydrogeology (2) – GEO12204
- Physical Education 3 (1*) (0) - PED12103
- Professional Skills for Engineers (2) - SOC02206
- English 2 (3) - ENG42302

Semester 4 - 21

- Differential Equations (3) – MAT12305
- Probability and Statistics (2) – MAT12206
- General Geophysics (3) – GEO12333 — PHY21202
- Igneous and Metamorphic Petrology (+Lab) (4) – GEO12405 — GEO12303
- Structural Geology (+Lab) (4) – GEO12406
- Geological Field Camp (2) – GEO12207
- English 3 (3) - ENG42303

AY3: Junior Year

Semester 5 - 24

- Theory of Electromagnetic Fields (2) – ELE33204
- Linear Algebra and Matrix Theory (2) – MAT13207
- Introduction to Partial Differential Equations (2) – MAT13208
- Geophysical Exploration Methods (3) – GEO13337 — MATH12305, MATH12206
- Well Logging (4) – GEO13438
- Sedimentology (3) – GEO13334 — GEO12302, GEO12303
- Petroleum Geology (3) – GEO13311
- English 4 (3) - ENG43304

Semester 6 - 19

- Petroleum Seismology (4) – GEO13439 — MAT13207, MAT13208
- Seismic Data Processing and Interpretation (4) – GEO13424 — GEO12406, ELE33204, GEO13311
- Senior Project 1 (1) – GEO13117
- Petroleum Reservoir Geology (2) – GEO13241 — GEO13311, GEO13438
- Fundamentals of Reservoir Engineering (2) – PET13244
- Summer Internship (1) – GEO13123
- Petroleum Economics (3) – ECO13301
- Health, Safety and Environment (2) – PSE13201

AY4: Senior year

Semester 7 - 20

- Petroleum Exploration Methods (2) – GEO14240
- Applied Geophysics (4) – GEO14428 — GEO13337
- Senior Project 2 (1) – GEO14126
- Petroleum Geochemistry (2) (GEO13236) — GEO13311
- Geology and Resources in Vietnam (3) – GEO14327
- Resevoir Petrophysics (+Lab) (4) – PET12404 — PHY21202
- Environmental Geology (2) – GEO14230 — GEO12302

Semester 8 - 10

- Graduation internship (2) – GEO14231
- Graduation thesis (8) – GEO14832

PETROVIETNAM UNIVERSITY
TALENTS FOR DEVELOPMENT