



| LEVEL IE0 (TOEFL iBT \leq 31 or IELTS \leq 4.0) | | | | | | |
|--|-----------|---|---------|----------|-----------|--------------|
| No. | Course ID | Course | Credits | | | ECTS |
| | | | Theory | Practice | Total | |
| Semester 1 | | | | | 34 | 52.36 |
| 1 | ENTP00 | IE0 | 17 | 0 | 17 | 26.18 |
| 2 | ENTP01 | IE1 | 17 | 0 | 17 | 26.18 |
| Semester 2 | | | | | 17 | 26.18 |
| 3 | ENTP02 | IE2 | 13 | 0 | 13 | 20.02 |
| 4 | PH019IU | General Physics 1 | 4 | 0 | 4 | 6.16 |
| 5 | PT001IU | Physical training 1 | 0 | 0 | 0 | 0 |
| Summer semester (Year 1) | | | | | 8 | 13.24 |
| 6 | MA001IU | Calculus 1 | 4 | 0 | 4 | 6.16 |
| 7 | PH020IU | General Physics 1 Laboratory | 0 | 2 | 2 | 4 |
| 8 | PH018IU | Introduction to Space Engineering | 2 | 0 | 2 | 3.08 |
| 9 | PT002IU | Physical training 2 | 0 | 0 | 0 | 0 |
| Semester 3 | | | | | 22 | 34.8 |
| 10 | EN007IU | Writing AE1 | 2 | 0 | 2 | 3.08 |
| | EN008IU | Listening AE1 | 2 | 0 | 2 | 3.08 |
| 11 | PH021IU | General Physics 2 | 3 | 0 | 3 | 4.62 |
| 12 | PH022IU | General Physics 2 Laboratory | 0 | 1 | 1 | 2 |
| 13 | MA003IU | Calculus 2 | 4 | 0 | 4 | 6.16 |
| 14 | EE050IU | Introduction to computer for engineers | 3 | 0 | 3 | 4.62 |
| 15 | EE057IU | Programming for engineers | 3 | 0 | 3 | 4.62 |
| 16 | EE058IU | Programming for engineers Laboratory | 0 | 1 | 1 | 2 |
| 17 | PH027IU | Earth observation and the environment | 3 | 0 | 3 | 4.62 |
| Semester 4 | | | | | 23 | 36.8 |
| 18 | PH025IU | Mathematics for Engineers | 4 | 0 | 4 | 6.16 |
| 19 | PH026IU | Differential equations | 2 | 0 | 2 | 3.08 |
| 20 | PH023IU | General Physics 3 | 2 | 0 | 2 | 3.08 |
| 21 | PH024IU | General Physics 3 Laboratory | 0 | 1 | 1 | 2 |
| 22 | PH032IU | Introduction to Signals and Systems | 3 | 0 | 3 | 4.62 |
| 23 | PH033IU | Signals and Systems Laboratory | 0 | 1 | 1 | 2 |
| 24 | PH037IU | Space Environment | 3 | 0 | 3 | 4.62 |
| 25 | PH040IU | Satellite Technology | 3 | 0 | 3 | 4.62 |
| 26 | PH055IU | iOS programming fundamentals | 3 | 1 | 4 | 6.62 |
| Summer semester (Year 2) | | | | | 0 | 0 |
| 27 | MP001IU | Military training | 0 | 0 | 0 | 0 |
| Semester 5 | | | | | 24 | 37.88 |
| 28 | PH030IU | Probability and statistics for engineers | 3 | 0 | 3 | 4.62 |
| 29 | PH029IU | Introduction to Relativity and Modern Physics | 3 | 0 | 3 | 4.62 |
| 30 | PH031IU | Optics and Photonics | 2 | 0 | 2 | 3.08 |
| 31 | PH035IU | Introduction to Space Communications | 3 | 0 | 3 | 4.62 |
| 32 | PH047IU | Navigation Systems | 3 | 0 | 3 | 4.62 |
| 33 | PH057IU | Geolocation App Development for iOS | 3 | 1 | 4 | 6.62 |



| | | | | | | |
|--|---------|---|----|---|------------|--------------|
| 34 | PH038IU | Introduction to Digital Image Processing | 2 | 0 | 2 | 3.08 |
| 35 | PH039IU | Digital Image Processing Laboratory | 0 | 1 | 1 | 2 |
| 36 | PH056IU | Project Management | 3 | 0 | 3 | 4.62 |
| Semester 6 | | | | | 24 | 39.26 |
| 37 | EE092IU | Digital Signal Processing | 3 | 0 | 3 | 4.62 |
| 38 | EE093IU | Digital Signal Processing Laboratory | 0 | 1 | 1 | 2 |
| 39 | PH041IU | Digital Image Processing | 3 | 0 | 3 | 4.62 |
| 40 | PH043IU | Satellite Signal And Image Processing Laboratory | 1 | 2 | 3 | 5.54 |
| 41 | PH053IU | Big Data Analytics for Remote Sensing | 3 | 0 | 3 | 4.62 |
| 42 | PH054IU | Big Data Analytics for Remote Sensing Laboratory | 0 | 1 | 1 | 2 |
| 43 | EE105IU | Antenna and Microwave Engineering | 3 | 0 | 3 | 4.62 |
| 44 | EE124IU | Antenna and Microwave Engineering Laboratory | 0 | 1 | 1 | 2 |
| 45 | PH036IU | Remote Sensing | 3 | 0 | 3 | 4.62 |
| 46 | PE015IU | Marxist-Leninist philosophy | 3 | 0 | 3 | 4.62 |
| Summer semester (Year 3) | | | | | 3 | 4.92 |
| 47 | PH044IU | Internship | 3 | 0 | 3 | 4.92 |
| Semester 7 | | | | | 22 | 35.2 |
| 48 | PH042IU | Research Project | 4 | 0 | 4 | 6.56 |
| 49 | EN011IU | Writing AE 2 | 2 | 0 | 2 | 3.08 |
| | EN012IU | Speaking AE2 | 2 | 0 | 2 | 3.08 |
| 50 | PE016IU | Marxist-Leninist political economy | 2 | 0 | 2 | 3.08 |
| Electives (choose 4 out of 5 courses below) | | | | | 12 | 19.4 |
| 51 | PH045IU | Fundamental of Surveying | 2 | 1 | 3 | 5.08 |
| 52 | PH046IU | Geographic Information Systems (GIS) and Spatial Analysis | 2 | 1 | 3 | 5.08 |
| 53 | EE133IU | Emerging Engineering Technologies | 3 | 0 | 3 | 4.62 |
| 54 | PH048IU | Radio Astrophysics | 3 | 0 | 3 | 4.62 |
| 55 | PH049IU | Advanced Remote Sensing | 3 | 0 | 3 | 4.62 |
| Semester 8 | | | | | 15 | 24.1 |
| 56 | PH050IU | Thesis | 10 | 0 | 10 | 16.4 |
| 57 | PE017IU | Scientific socialism | 2 | 0 | 2 | 3.08 |
| 58 | PE008IU | Critical thinking | 3 | 0 | 3 | 4.62 |
| Summer semester (Year 4) | | | | | 7 | 10.78 |
| 59 | PE018IU | History of Vietnamese Communist Party | 2 | 0 | 2 | 3.08 |
| 60 | PE019IU | Ho Chi Minh's Thought | 2 | 0 | 2 | 3.08 |
| 61 | PE020IU | Engineering Ethics and Professional Skills | 3 | 0 | 3 | 4.62 |
| Total | | | | | 199 | 338.3 |