

**PROGRAM OF STUDY FOR A BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING  
MAJOR REQUIREMENTS**

| AUB COURSE CODE   | AUBMED COURSE CODE   | COURSE NAME  | PRE-REQ  | ECTS            | GRADES       |
|---|--|--|--|-----------------|--------------|
| ACCT 210  | BBAC 100   | Financial Accounting                                   |  | 6               |              |
| MNGT 215  | BBAC 201   | Fund. Of Mngt. & Org. Behavior                         |  | 6               |              |
| CIVE 210  | CIVE 121   | Statics / Dynamics                                     |  | 6               |              |
| EECE 230  | CMPS 101   | Introduction to Programming                            |  | 6               |              |
| INDE 301  | INDE 200   | Engineering Economy                                    | PREREQUISITE: STAT 101 OR EQUIVALENT.  | 6               |              |
| INDE 302  | INDE 210   | Operations Research I                                  | PRE-REQ: MATH 201 OR MATH 202, OR EQUIVALENT   | 6               |              |
| INDE 303  | INDE 211   | Operations Research II                                 | PRE-REQ: STAT 101 OR EQUIVALENT  | 6               |              |
| INDE 320  | INDE 220   | Work Measurement and Methods Engineering               | PRE-REQ: STAT 101 OR EQUIVALENT  | 6               |              |
| INDE 402  | INDE 300   | Facilities Planning and Material Handling              | PRE-REQ: INDE 210 & INDE 211   | 6               |              |
| INDE 411  | INDE 301   | Introduction to Project Management                     | PRE-REQ: INDE 210, INDE 211  | 6               |              |
| INDE 421  | INDE 302   | Human Factors Engineering                              | PRE-REQ: INDE 220  | 6               |              |
| INDE 430  | INDE 303   | Statistical Quality Control                            | PRE-REQ: STAT 101  | 6               |              |
| INDE 431  | INDE 310   | Production Planning and Inventory Control              | PRE-REQ: INDE 210, INDE 211  | 6               |              |
| INDE 504  | INDE 311   | Discrete Event Simulation                              | PRE-REQ: INDE 211  | 6               |              |
| INDE 410  | INDE 330   | Engineering Ethics                                     | Considered as UNDERSTANDING OUR VALUES   | 0               |              |
| INDE 412  | INDE 340   | Engineering Entrepreneurship                           | PRE-REQ: INDE 200 OR EQUIVALENT  | 4               |              |
| INDE 513  | INDE 401   | Information Systems                                    |  | 6               |              |
| INDE 535  | INDE 410   | Data Analytics   |  | 6               |              |
| INDE 500  | INDE 450   | Approved Experience                                    | Min 160 ECTS completed   | 0               |              |
| INDE 501  | INDE 460   | Final Year Project I                                   | PRE-REQ: COMPLETION OF THIRD YEAR IN IE REQ. FALL  | 6               |              |
| INDE 502  | INDE 461   | Final Year Project II                                  | PRE-REQ: INDE 460  | 6               |              |
| MECH 421  | MECH 300   | Manufacturing Processes I                              |  | 6               |              |
| <b>Total Credits:</b>   |  |  |  | <b>118</b>      |              |
| <b>REQUIRED BASIC SCIENCE COURSES</b>   |  |  |  |                 |              |
| MATH 202  | MATH 101   | Differential Equations                                 | PRE-REQ: MATH 100  | 6               |              |
| MATH 218/219  | MATH 201/202   | Linear Algebra   | Students cannot receive credit for both MATH 202 and MATH 201.   | 6               |              |
| MATH 251  | MATH 203   | Numerical Computing                                    | Prerequisites: CMPS 100, and MATH 100. Prerequisite or Co-requisite: MATH 201. Students cannot receive credit for both MATH 203 and CMPS 351 | 6               |              |
| STAT 230  | STAT 101   | Introduction to Probability and Random Variables       | Prerequisite: MATH 100. Students who complete STAT 101 cannot receive credit for STAT 100  | 6               |              |
| PHYS 210  | PHYS 100   | Introductory Physics II                                | Pre- or corequisite: MATH 100  | 6               |              |
| CHEM 201/202  | CHEM 100/101   | Chemistry principals/ intro to environmental chemistry |  | 6               |              |
| <b>Total Credits:</b>   |  |  |  | <b>36</b>       |              |
| <b>GENERAL EDUCATION REQUIREMENTS</b>   |  |  |  |                 |              |
| <b>UNDERSTANDING OUR COMMUNICATION</b>  |  |  |  |                 |              |
|   | <b>COURSE</b>  | <b>COURSE NAME</b>                                     | <b>NOTE</b>  | <b>ECTS</b>     | <b>GRADE</b> |
| ENGL 203  | ENGL 100   | Academic English                                       | English Communication I (Our Understanding of the Communication)   | 6               |              |
| ENGL 206  | ENGL 102   | Technical English                                      | English Communication II (Our Understanding of the Communication)  | 6               |              |
| ARAB 203  | ARAB 100   | Beginners' Arabic as a Foreign Language I              | Arabic Communications or Arabic as a Foreign Language  | 6               |              |
| ARAB 204  | ARAB 101   | Beginners' Arabic as a Foreign Language II             | Arabic Communications or Arabic as a Foreign Language II (Understanding our Communication)   | 6               |              |
|   | GRLG 100   | Greek as a foreign language                            | (Should be taken instead of one of the required arabic courses)  | 6               |              |
|   | TBD  |  | Writing in the Discipline (fulfilled through an ILA-Designated Course)   | 0               |              |
| <b>CREDITS</b>  |  |  |  | <b>24 ECTS</b>  |              |
| <b>UNDERSTANDING THE WORLD</b>  |  |  |  |                 |              |
|   | <b>COURSE</b>  | <b>COURSE NAME</b>                                     | <b>NOTE</b>  | <b>ECTS</b>     | <b>GRADE</b> |
| BIOL 210  | BIOL 101   | Human Biology  | The Earth and Planetary Systems  | 6               |              |
|   | TBD  |  | The Earth and Planetary Systems or Quantitative Reasoning  | 6               |              |
|   | TBD  |  | The Earth and Planetary Systems or Quantitative Reasoning  | 6               |              |
| MATH 201  | MATH 100   | Calculus and Analytic Geometry III                     | Quantitative Reasoning   | 6               |              |
| <b>CREDITS</b>  |  |  |  | <b>24 ECTS</b>  |              |
| <b>UNDERSTANDING OURSELVES (to include 6 ECTS in Greek Studies) AT LEAST TWO FROM EACH CATEGORY</b> |  |  |  |                 |              |
|   | <b>COURSE</b>  | <b>COURSE NAME</b>                                     | <b>NOTE</b>  | <b>ECTS</b>     | <b>GRADE</b> |
|   | TBD  |  | Cultures and Histories   | 6               |              |
|   | TBD  |  | Cultures and Histories   | 6               |              |
|   | TBD  |  | Cultures and Histories or Societies and Individuals  | 6               |              |
|   | INDE 100   | Introduction to Industrial Engineering                 | Societies and Individuals  | 6               |              |
|   | TBD  |  | Societies and Individuals  | 6               |              |
| <b>CREDITS</b>  |  |  |  | <b>30 ECTS</b>  |              |
| <b>UNDERSTANDING OUR ROLE IN THE WORLD</b>  |  |  |  |                 |              |
|   | <b>COURSE</b>  | <b>COURSE NAME</b>                                     | <b>NOTE</b>  | <b>ECTS</b>     | <b>GRADE</b> |
| INDE 410  | INDE 330   | Engineering Ethics                                     | Understanding our Values   | 6               |              |
|   | CCECS 200  | Civic Engagement                                       | Our Engagement in the World  | 6               |              |
| <b>CREDITS</b>  |  |  |  | <b>12 ECTS</b>  |              |
| <b>THEMATIC REQUIREMENTS</b>  |  |  |  |                 |              |
|   | First-Year Student Experience (0 ECTS Requirement)                               |  |  |                 |              |
|   | Beirut Residency (0 ECTS Requirement)  |  |  |                 |              |
|   | Social Inequalities (6 ECTS fulfilled through courses designated by ILA as such) |  |  |                 |              |
|   | History of Ideas (6 ECTS fulfilled through courses designated by ILA as such)    |  |  |                 |              |
| <b>TOTAL LIBERAL ARTS CREDITS</b>   |  |  |  | <b>90 ECTS</b>  |              |
| <b>TOTAL CREDITS FOR GRADUATION</b>   |  |  |  | <b>244 ECTS</b> |              |