

**ECTS EQUIVALENTS TABLE**  
**(EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM)**  
**ACADEMIC SEMESTER 2017-I**  
**INFORMATION SYSTEMS (INGENIERÍA DE COMPUTACIÓN Y SISTEMAS)**

| SAP CODE    | TERM / COURSE                     | CREDITS | TH | PH | LH | TH | ECTS  |
|-------------|-----------------------------------|---------|----|----|----|----|-------|
| <b>I</b>    |                                   |         |    |    |    |    |       |
| 09000201020 | Spanish                           | 2       | 1  | 2  | 0  | 3  | 2.72  |
| 09000301030 | Philosophy                        | 3       | 3  | 0  | 0  | 3  | 4.08  |
| 09066201020 | Introduction to Engineering       | 2       | 1  | 2  | 0  | 3  | 2.72  |
| 09066301040 | Analytic Geometry                 | 4       | 3  | 2  | 3  | 8  | 5.44  |
| 09066801051 | Discrete Math                     | 5       | 4  | 2  | 0  | 6  | 6.80  |
| 09070901030 | National Reality                  | 3       | 3  | 0  | 0  | 3  | 4.08  |
| 09071001020 | Study Methods                     | 2       | 1  | 2  | 0  | 3  | 2.72  |
| TR000101010 | English I                         | 1       | 0  | 2  | 0  | 2  | 1.36  |
| TR000501010 | Activities I                      | 1       | 0  | 2  | 0  | 2  | 1.36  |
|             |                                   | 23      |    |    |    |    | 31.28 |
| <b>II</b>   |                                   |         |    |    |    |    |       |
| 09036602050 | Linear Algebra                    | 5       | 4  | 2  | 0  | 6  | 6.80  |
| 09065502050 | Calculus I                        | 5       | 4  | 2  | 0  | 6  | 6.80  |
| 09066502031 | Web Design Fundamentals           | 3       | 2  | 2  | 0  | 4  | 4.08  |
| 09111402050 | Introduction to Programming       | 5       | 3  | 1  | 3  | 7  | 6.80  |
| 09127402030 | Introduction to Economy           | 3       | 2  | 2  | 0  | 4  | 4.08  |
| TR000202010 | English II                        | 1       | 0  | 2  | 0  | 2  | 1.36  |
| TR000602010 | Activities II                     | 1       | 0  | 2  | 0  | 2  | 1.36  |
|             |                                   | 23      |    |    |    |    | 31.28 |
| <b>III</b>  |                                   |         |    |    |    |    |       |
| 09005303050 | Algorithms and Data Structures I  | 5       | 3  | 1  | 3  | 7  | 6.80  |
| 09005403040 | Statistics and Probabilities I    | 4       | 3  | 2  | 0  | 5  | 5.44  |
| 09005603050 | Physics I                         | 5       | 3  | 2  | 2  | 7  | 6.80  |
| 09111503050 | Information Technology I          | 5       | 4  | 0  | 2  | 6  | 6.80  |
| 09127603030 | Information Systems               | 3       | 2  | 2  | 0  | 4  | 4.08  |
|             |                                   | 22      |    |    |    |    | 29.92 |
| <b>IV</b>   |                                   |         |    |    |    |    |       |
| 09006004040 | Statistics and Probabilities II   | 4       | 3  | 2  | 0  | 5  | 5.44  |
| 09006904050 | Algorithms and Data Structures II | 5       | 3  | 1  | 3  | 7  | 6.80  |
| 09007404050 | Physics II                        | 5       | 3  | 2  | 2  | 7  | 6.80  |
| 09007704040 | Microeconomics                    | 4       | 3  | 2  | 0  | 5  | 5.44  |
| 09114904040 | Information Technology II         | 4       | 3  | 0  | 2  | 5  | 5.44  |
|             |                                   | 22      |    |    |    |    | 29.92 |

**V**

|             |                               |           |   |   |   |   |              |
|-------------|-------------------------------|-----------|---|---|---|---|--------------|
| 09008905050 | Data Base Theory and Design   | 5         | 3 | 1 | 3 | 7 | 6.80         |
| 09009005040 | Administrative Engineering    | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09012205043 | General Accounting            | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09093205051 | Process Management            | 5         | 4 | 0 | 2 | 6 | 6.80         |
| 09127905040 | Operating Systems and Servers | 4         | 3 | 0 | 2 | 5 | 5.44         |
|             |                               | <u>22</u> |   |   |   |   | <u>29.92</u> |

**VI**

|             |                        |           |   |   |   |   |              |
|-------------|------------------------|-----------|---|---|---|---|--------------|
| 09008506040 | Operations Research I  | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09008806040 | Systems General Theory | 4         | 4 | 0 | 0 | 4 | 5.44         |
| 09011906050 | Software Engineering I | 5         | 3 | 2 | 2 | 7 | 6.80         |
| 09013106041 | Costs Engineering      | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09067106050 | Programming I          | 5         | 3 | 0 | 4 | 7 | 6.80         |
|             |                        | <u>22</u> |   |   |   |   | <u>29.92</u> |

**VII**

|             |                                      |           |   |    |   |    |              |
|-------------|--------------------------------------|-----------|---|----|---|----|--------------|
| 09013707050 | Software Engineering II              | 5         | 3 | 1  | 3 | 7  | 6.80         |
| 09014507040 | Financial Management                 | 4         | 3 | 2  | 0 | 5  | 5.44         |
| 09066607040 | Artificial Intelligence and Robotics | 4         | 4 | 0  | 0 | 4  | 5.44         |
| 09112107050 | Project Workshop                     | 5         | 0 | 10 | 0 | 10 | 6.80         |
|             | <b>Electives</b>                     | <u>4</u>  | 4 | 0  | 0 | 4  | <u>5.44</u>  |
|             |                                      | <u>22</u> |   |    |   |    | <u>29.92</u> |

**VIII**

|             |                                     |           |   |   |   |   |              |
|-------------|-------------------------------------|-----------|---|---|---|---|--------------|
| 09054808040 | Projects Formulation and Evaluation | 4         | 4 | 0 | 0 | 4 | 5.44         |
| 09066408040 | IT Resources Management             | 4         | 4 | 0 | 0 | 4 | 5.44         |
| 09072108040 | Systems Design and Implementation   | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09128808040 | Business Architecture               | 4         | 4 | 0 | 0 | 4 | 5.44         |
|             | <b>Electives</b>                    | <u>6</u>  | 6 | 0 | 0 | 6 | <u>8.16</u>  |
|             |                                     | <u>22</u> |   |   |   |   | <u>29.92</u> |

**IX**

|             |  |           |   |   |   |   |              |
|-------------|--|-----------|---|---|---|---|--------------|
| 09066700021 | Oratory and Leadership                 | 2         | 1 | 2 | 0 | 3 | 2.72         |
| 09067009040 | IT Strategic Planning                  | 4         | 4 | 0 | 0 | 4 | 5.44         |
| 09067309040 | Project I                              | 4         | 4 | 0 | 0 | 4 | 5.44         |
| 09067909040 | Information Systems Security and Audit | 4         | 3 | 2 | 0 | 5 | 5.44         |
| 09093409040 | Business Intelligence                  | 4         | 4 | 0 | 0 | 4 | 5.44         |
|             | <b>Electives</b>                       | <u>4</u>  | 4 | 0 | 0 | 4 | <u>5.44</u>  |
|             |  | <u>22</u> |   |   |   |   | <u>29.92</u> |

**X**

|             |                   |           |    |   |   |    |              |
|-------------|-------------------|-----------|----|---|---|----|--------------|
| 09003410022 | Ethics and Moral  | 2         | 1  | 2 | 0 | 3  | 2.72         |
| 09007010040 | Project II        | 4         | 4  | 0 | 0 | 4  | 5.44         |
| 09134910040 | Digital Marketing | 4         | 4  | 0 | 0 | 4  | 5.44         |
|             | <b>Electives</b>  | <u>12</u> | 12 | 0 | 0 | 12 | <u>16.30</u> |
|             |                   | 22        |    |   |   |    | 29.92        |

|              |        |
|--------------|--------|
| <b>Total</b> |        |
| <b>ECTS</b>  | 301.92 |

**ELECTIVES**

|             |  |   |   |   |   |   |      |
|-------------|--|---|---|---|---|---|------|
| 090205E1040 | Electronic Commerce                            | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090608E1040 | Business Creativity Workshop                   | 4 | 3 | 2 | 0 | 5 | 5.44 |
| 090861E1040 | Data Base Administration                       | 4 | 2 | 0 | 4 | 6 | 5.44 |
| 090933E1040 | Knowledge Management                           | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 091119E1040 | Integrated Management Systems - ERP            | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090675E2040 | Networks and Connectivity I (CCNA I CISCO)     | 4 | 2 | 0 | 4 | 6 | 5.44 |
| 090676E2040 | Networks and Connectivity II (CCNA II CISCO)   | 4 | 2 | 0 | 4 | 6 | 5.44 |
| 090677E2040 | Networks and Connectivity III (CCNA III CISCO) | 4 | 2 | 0 | 4 | 6 | 5.44 |
| 090678E2040 | Networks and Connectivity IV (CCNA IV CISCO)   | 4 | 2 | 0 | 4 | 6 | 5.44 |
| 090862E2040 | Information Security                           | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090658E3040 | Software Quality                               | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090659E3040 | Applications Development I                     | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090660E3040 | Applications Development II                    | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 090672E3040 | Programming II                                 | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 091124E3040 | Software Testing                               | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 09011607040 | Operations Research II                         | 4 | 3 | 2 | 0 | 5 | 5.44 |
| 090147E4020 | Organizational Behavior                        | 2 | 2 | 0 | 0 | 2 | 2.72 |
| 09061700040 | Strategic Management                           | 4 | 3 | 2 | 0 | 5 | 5.44 |
| 09085200030 | Project Management - PMI                       | 3 | 2 | 2 | 0 | 4 | 4.08 |
| 09086300020 | Innovation Management                          | 2 | 2 | 0 | 0 | 2 | 2.72 |
| 091125E4020 | Computing Topics                               | 2 | 2 | 0 | 0 | 2 | 2.72 |
| 091126E4040 | Games Development                              | 4 | 4 | 0 | 0 | 4 | 5.44 |
| 091217E4020 | Introduction to Information Research           | 2 | 2 | 0 | 0 | 2 | 2.72 |