# School of Engineering and Computer Science

## Bachelor of Science in Engineering (BIC)

### School of Engineering and Computer Science

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<tr>
<th>Code</th>
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<td>Minimum Requirements</td>
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<td>Grade point average – minimum of 2.00 (&quot;C&quot;) overall and also in the major for work done at Baylor. In addition, Engineering majors must meet a higher level for upper division admission.</td>
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### Interdisciplinary Core Requirements

#### World Cultures
- **BIC 1314** World Cultures I: Roots of Culture (3)
- **BIC 1324** World Cultures II: Religion and Culture (3)
- **BIC 2334** World Cultures III: The Modern World (3)
- **BIC 2344** World Cultures IV: The United States in the World (3)

#### The World of Rhetoric
- **BIC 1313** World of Rhetoric I (3)

#### The Social World
- **BIC 2330** Social World I: The City and the Soul (3)
- **BIC 2340** Social World II: The Conditions and Possibilities of Human Fulfillment (3)

#### The Examined Life
- **BIC 1112** Examined Life (1)
- **BIC 3358** Examined Life II: Biblical Heritage and Contemporary Ethical Issues (3)

### Additional Humanities and Social Sciences

#### Foreign Language
- Second level proficiency (at least 1302, 1402, or 1412) must be achieved.
- 3-8

#### Chapel
- Two semesters, usually freshman year
- 0

### Mathematics and Basic Sciences

#### CHE 1301
- Basic Principles of Modern Chemistry I (3)

#### MTH 1321
- Calculus I (3)

#### MTH 1322
- Calculus II (3)

#### MTH 2311
- Linear Algebra (3)

#### MTH 2321
- Calculus III (3)

#### MTH 3325
- Ordinary Differential Equations (3)

#### STA 3381
- Probability and Statistics (3)

#### PHY 1420
- General Physics I (3)

#### & PHY 1430
- General Physics II (3)

Select one of the following Mathematics or Basic Science Courses:
- **MTH 4329** Theory of Functions of a Complex Variable (Required for Electrical and Computer Engineering major)

### Other Requirements

- **PWR 3300** Technical Writing (3)
- **ECO 3308** Engineering Economic Analysis (3)
- **Ethics Elective**
  - **EGR 3305** or **EGR 3315** (3)

### Lifetime Fitness

- One activity course
- 1

### Bachelor of Science in Computer Science (BIC)

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### Interdisciplinary Core Requirements

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#### The Examined Life
- **BIC 1112** Examined Life (1)
- **BIC 3358** Examined Life II: Biblical Heritage and Contemporary Ethical Issues (3)

### Additional Core Requirements

#### Foreign Language
- Second-level proficiency (at least 1302, 1402, or 1412) must be achieved.
- 3-7

1. Complete one course to reach second-level proficiency (1302, 1402, 1412) must be achieved.
2. Complete two courses to reach second-level proficiency (beginning with 1301 or 1401)

#### Chapel
Two semesters, usually freshman year

**Technical Core Requirements**

**Mathematics**
- MTH 1321 Calculus I 3
- MTH 1322 Calculus II 3
- STA 3381 Probability and Statistics 3
- MTH 2311 Linear Algebra 3
  or MTH 2321 Calculus III

**Sciences**

Complete one group from the following natural or physical sciences. Complete an additional six to eight hours from the courses below or from courses which have one or more of the below courses as prerequisites:

12-16

- **Group 1**
  - BIO 1305 & BIO 1105 Modern Concepts of Bioscience and Modern Concepts of Bioscience Laboratory
  - BIO 1306 & BIO 1106 Modern Concepts of Bioscience, continued and Modern Concepts of Bioscience Laboratory

- **Group 2**
  - CHE 1301 & CHE 1302 Basic Principles of Modern Chemistry I and Basic Principles of Modern Chemistry II

- **Group 3**
  - GEO 1405 & GEO 1306 The Dynamic Earth and The Earth Through Time
  - GEO 1106 & GEO 1106 and The Earth Through Time, Laboratory

- **Group 4**
  - Select one of the following sequences:
    - PHY 1408 & PHY 1409 General Physics for Natural and Behavioral Sciences I and General Physics for Natural and Behavioral Sciences II
    - PHY 1420 & PHY 1430 General Physics I and General Physics II

**Major**

See the Engineering and Computer Science B.S.C.S. degree section of this catalog for specific requirements.

**Minor**

Optional, see specific requirements in departmental sections of this catalog.

**Other Requirements**

The requirements for advanced credit, residence, language, a specified comprehensive examination, chapel, minimum grade point average, maximum credit, and lifetime fitness are the same as for the bachelor of arts degree.

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**Bachelor of Science in Informatics (BIC)**

**School of Engineering and Computer Science**

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**Interdisciplinary Core Requirements**

**World Cultures**
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- BIC 1324 World Cultures II: Religion and Culture 3
- BIC 2334 World Cultures III: The Modern World 3
- BIC 2344 World Cultures IV: The United States in the World 3

**The World of Rhetoric**
- BIC 1313 World of Rhetoric I 3

**The Social World**
- BIC 2330 Social World I: The City and the Soul and Social World II: The Conditions and Possibilities of Human Fulfillment 6

**The Examined Life**
- BIC 1112 Examined Life and Examined Life II: Biblical Heritage and Contemporary Ethical Issues 4

**Additional Core Requirements**
- PWR 3300 Technical Writing 3

**Foreign Language**
- One language through 1302 or 1412 3-6

**Chapel**

Two semesters, usually freshman year 0

**Technical Core Requirements**
- MTH 1321 Calculus I 3
- STA 2381 Introductory Statistical Methods 3
  or STA 3381 Probability and Statistics
- CHE 1301 General Chemistry Laboratory I 1
- CHE 1302 Basic Principles of Modern Chemistry I 3
- CHE 1101 General Chemistry Laboratory I 1
- CHE 3238 Organic Chemistry Laboratory 2
- CHE 3331 Organic Chemistry I 3
- CHE 3332 Organic Chemistry II 3

**Major**

See the Engineering and Computer Science B.S.I. degree section of this catalog for specific requirements.

**Other Requirements**

The requirements for a minor, advanced credit, and maximum credit are the same as for the Bachelor of Science in Computer Science degree.