## Bachelor of Science in Engineering (BIC)

### School of Engineering and Computer Science

**Code** | **Title** | **Hours**
---|---|---

### Requirements

**Minimum Requirements** | (136)
**Residence Requirement** | (60)

**Grade point average** | minimum of 2.00 (“C”) overall and also in the major for work done at Baylor. In addition, Engineering majors must meet a higher level for upper division admission.

### 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 & BIC 2340** 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 & BIC 3358** Examined Life and Examined Life II: Biblical Heritage and Contemporary Ethical Issues 4

### 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 & PHY 1430** General Physics I and General Physics II 8

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) 3
- **MTH 3326** Partial Differential Equations (Required for the Mechanical Engineering major)

### Other Requirements

- **PWR 3300** Technical Writing 3
- **ECO 3308** Engineering Economic Analysis 3
- **Ethics Elective**
  - **EGR 3305 or EGR 3315** Social and Ethical Issues in Engineering 3
  - **Ethics of International Service**

### Lifetime Fitness

One activity course 2

### Major

See the Department of Engineering section of this catalog for specific requirements. 64

1. BSE Program requires EGR 3305 Social and Ethical Issues in Engineering.
2. PUBH 1145 Health and Human Behavior will not meet this requirement.

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## Bachelor of Science in Computer Science (BIC)

### School of Engineering and Computer Science

**Code** | **Title** | **Hours**
---|---|---

### Requirements

**Minimum Requirements** | (136)
**Residence Requirement** | (60)

**Grade point average** | minimum of 2.00 (“C”) overall and also in the major for work done at Baylor.

### 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 & BIC 2340** 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 1

### 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, 2310, or 2320)
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  3

#### 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:

**Group 1**
- BIO 1305  Modern Concepts of Bioscience and Modern Concepts of Bioscience Laboratory  3
  &  BIO 1105
- BIO 1306  Modern Concepts of Bioscience, continued and Modern Concepts of Bioscience Laboratory  3
  &  BIO 1106

**Group 2**
- CHE 1301  Basic Principles of Modern Chemistry I  3
  &  CHE 1302  Basic Principles of Modern Chemistry II  3

**Group 3**
- GEO 1405  The Dynamic Earth  3
  &  GEO 1306  and The Earth Through Time  3
  &  GEO 1106  and The Earth Through Time, Laboratory  1

**Group 4**
Select one of the following sequences:
- PHY 1408  General Physics for Natural and Behavioral Sciences I  3
  &  PHY 1409  and General Physics for Natural and Behavioral Sciences II  3
- PHY 1420  General Physics I  3
  &  PHY 1430  and General Physics II  3

### 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.

### Bachelor of Science in Informatics (BIC)
#### School of Engineering and Computer Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MTH 1321</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>STA 2381</td>
<td>Introductory Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>
  or STA 3381  Probability and Statistics  3
| CHE 1301 | Basic Principles of Modern Chemistry I | 3 |
| CHE 1101 | General Chemistry Laboratory I | 1 |
| CHE 1302 | Basic Principles of Modern Chemistry II | 3 |
| CHE 1102 | General Chemistry Laboratory II | 1 |
| CHE 3238 | Organic Chemistry Laboratory | 2 |
| CHE 3331 | Organic Chemistry I | 3 |
| CHE 3332 | Organic Chemistry II | 3 |

### 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  and Social World II: The Conditions and Possibilities of Human Fulfillment  3

#### The Examined Life
- BIC 1112  Examined Life  3
  &  BIC 3358  and Examined Life II: Biblical Heritage and Contemporary Ethical Issues  3

### 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  3
- CHE 1301  Basic Principles of Modern Chemistry I  3
- CHE 1101  General Chemistry Laboratory I  1
- CHE 1302  Basic Principles of Modern Chemistry II  3
- CHE 1102  General Chemistry Laboratory II  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.