

SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Bachelor of Science in Engineering (BIC)

School of Engineering and Computer Science

Code	Title	Hours
Requirements		
Minimum Requirements		(136)
Residence Requirement – minimum (including the last thirty hours)		(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		
<i>World Cultures</i>		
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
<i>The World of Rhetoric</i>		
BIC 1313	World of Rhetoric I	3
<i>The Social World</i>		
BIC 2330 & BIC 2340	Social World I: The City and the Soul and Social World II: The Conditions and Possibilities of Human Fulfillment	6
<i>The Examined Life</i>		
BIC 1112 & BIC 3358	Examined Life and Examined Life II: Biblical Heritage and Contemporary Ethical Issues	4
Additional Humanities and Social Sciences		
<i>Foreign Language</i>		
Second level proficiency (at least 1302, 1402, or 1412) must be achieved.		3-8
<i>Chapel</i>		
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:		3
MTH 4329	Theory of Functions of a Complex Variable (Required for Electrical and Computer Engineering major)	

MTH 3326	Partial Differential Equations (Required for the Mechanical Engineering major)	
Other Requirements		
PWR 3300	Technical Writing	3
ECO 3308	Engineering Economic Analysis	3
<i>Ethics Elective</i>		
EGR 3305 or EGR 3315	Social and Ethical Issues in Engineering ¹ Ethics of International Service	3
<i>Lifetime Fitness</i>		
One activity course ²		1
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.

Bachelor of Science in Computer Science (BIC)

School of Engineering and Computer Science

Code	Title	Hours
Requirements		
Minimum Requirements		(136)
Residence Requirement – minimum (including the last thirty hours)		(60)
Grade point average – minimum of 2.00 (“C”) overall and also in the major for work done at Baylor.		
Interdisciplinary Core Requirements		
<i>World Cultures</i>		
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
<i>The World of Rhetoric</i>		
BIC 1313	World of Rhetoric I	3
<i>The Social World</i>		
BIC 2330 & BIC 2340	Social World I: The City and the Soul and Social World II: The Conditions and Possibilities of Human Fulfillment	6
<i>The Examined Life</i>		
BIC 1112	Examined Life	1
Additional Core Requirements		
PWR 3300	Technical Writing	3
<i>Foreign Language</i>		
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)		
<i>Chapel</i>		

Two semesters, usually freshman year 0

Technical Core Requirements

Mathematics

MTH 1321	Calculus I	3
MTH 1322	Calculus II	3
STA 3381	Probability and Statistics	3
MTH 2311 or MTH 2321	Linear Algebra 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: 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	
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Group 3

GEO 1405 & GEO 1306 & GEO 1106	The Dynamic Earth and The Earth Through Time and The Earth Through Time, Laboratory	
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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. 44

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

Code	Title	Hours
Requirements		
Minimum Requirements		(136)
Residence Requirement – minimum (including the last thirty hours)		(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
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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
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The Examined Life

BIC 1112 & BIC 3358	Examined Life and Examined Life II: Biblical Heritage and Contemporary Ethical Issues	4
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Additional Core Requirements

PWR 3300	Technical Writing	3
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Foreign Language

One language through 1302 or 1412	3-6
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Chapel

Two semesters, usually freshman year	0
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Technical Core Requirements

MTH 1321	Calculus I	3
STA 2381 or STA 3381	Introductory Statistical Methods 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. 58

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.