Major Requirements

Lower Division Core Engineering Requirement	Pre-Req	Units	Note
**EGR101 Engineering from a Christian Worldview	-	3	Fall only
EGR102 Introduction to Engineering Design	-	4	Spring only
**EGR103 Engineering Service I	Coreq EGR101	1	Fall only
EGR121 Introduction to Computer Programming using C++	Prereq: MAT115	3	
EGR122 Visualization Languages I	-	3	
**EGR192 Engineering Seminar I	-	1	Spring only
***EGR202 Worldview Reflection I	-	0	Spring only

** Junior and Senior transfer students will complete 301, 303 and 392 instead.
***Completion req'd for entrance to Computer Science degree Program

Upper Division Core Engineering Requirement	Pre-Req	Units	Note
EGR302 Engineering Design and Documentation	Pre EGR202;Co- EGR305	3	Fall only
EGR304 Leadership Cohort	Co- EGR302	1	Spring only
EGR305 Engineering Statistics	MAT245	2	Fall only
EGR306 Internship Preparation	Pre or Co- EGR202	1	Fall only
EGR390 Internship		0	As offered
EGR401 Capstone Design	Pre 302/352; Concur EGR302	3	Fall only
EGR402 Capstone Design and Presentation	Pre EGR401; Con EGR404, 406	3	Spring only
EGR404 Worldview Reflection II	-	0	Spring only
EGR405 Internship Report and Presentation	-	1	Fall only

Math and Science Requirement	Pre-Req	Units	Note
CSC312 Algorithms	EGR221	3	Spring only
EGR182 Intro Mathematics for EGR Applications	MAT115 or EGR181	4	
EGR225 Discrete Structures I	-	3	Fall only
MAT245 Analytical Geometry and Calculus I	EGR182	4	
MAT255 Analytical Geometry and Calculus II	MAT245	4	
PHY201 Physics for Engineers I with Lab	MAT245 or B in EGR182	4	
PHY203 Physics for Engineers II with Lab	PHY201	4	
Four (4) units of approved science	-	4	

Cross Cultural Experience Requirement (Course credit not required)			
Engineering students are required to complete an approved cross cultural experience. List of approved experiences in CoE.			

Lower Division Computing Software Requirement	Pre-Req	Units	Note
EGR221 Data Structures	CIS268 or EGR121	3	Fall only
EGR222 Software Engineering	EGR121	4	Fall only
EGR223 ...Human Computer Interaction	EGR222	3	Spring only
EGR226 Operating Systems and Networking	EGR222	3	Spring only

Upper Division Computing Software Requirement	Pre-Req	Units	Notes
CSC311 Compiler Design and Languages	EGR221	3	Fall only
CSC 313 Graphics and Visual Computing	EGR221	3	Spring only
CSC 411 Social and Professional Issues in Computing	-	1	Spring only
CSC 412 Intelligent Systems	EGR305	3	Fall only
CSC 413 Information Security and Computer Forensics	EGR222	3	Fall only
CSC 414 Theory of Computation	EGR225	3	Spring only
EGR 324 Engineering Economics	-	3	Spring only
EGR 325 Database Systems	EGR222	3	Spring only
EGR 329 Computer Architecture	EGR121, 225	3	Fall only
EGR 425 Real Time and Embedded Development	EGR222, 327	3	Spring only

Computing and Software Elective	Pre-Req	Units	Notes
Complete a minimum of three (3) units from approved list.		3	See catalog

General Education Requirements

Competency Requirements	Units	Note
English Competency	3	ENG113 required
Math Competency	3	MAT245 will fulfill
Technology	3	EGR305 will fulfill
Foreign Language I	3	EGR121 will fulfill
Foreign Language II	3	EGR122 will fulfill

If you are exempt from a Competency Requirement or need units to read 124 units, add those units to Add'l Elective Units Needed.

Core Curriculum	Units	Note
Behavioral Science	6	EGR304, 306 and 405 will fulfill 3 units
English Composition	3	ENG123 required
English or Film	3	EGR401 will fulfill
Communication Arts	3	EGR302 will fulfill
Art or Music	3	EGR102 will fulfill
Philosophy	3	
US History	3	
Non-US History	3	
Political Science	3	
Lab Science	4	PHY201 will fulfill
Science or Kinesiology	4	PHY203 will fulfill
Christian Studies	9	EGR101 or 301 meet 3 units.

*Course is interdisciplinary

	Units	Note
Upper Division Requirements	12	EGR302, 401, and 304, 305, 306 will fulfill 9 units
Multicultural Requirements	9	ENG123 fulfill 3 units
Interdisciplinary Requirements	9	EGR102, EGR121 & EGR122 will fulfill

Total Required GE units: __27__
Upper Division Required GE Units: __3__

Total Major Units: __103__
Upper Division Major Units: __45-48__

Additional Elective Units Needed: __0__
Upper Division Elective Units Needed: __0__

Contact Information

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About This Plan

• This plan is not a contract. Curriculum can be subject to change.
• Highlighted courses and fields are major specific.
• Descriptions for all courses can be found in the CBU catalog.
• To graduate, students need 124 total units, 39 of which must be upper division.
• Courses numbered in the 300's and 400's are upper division.
• GST100, ENG103, and MAT095 count as elective units.

Freshman Year

Fall Semester

Course	Units
EGR101 Engineering from a Christian Worldview	3
EGR103 Engineering Service	1
EGR121 Introduction to Computer Programming in C++	3
EGR182 Intro Mathematics for EGR Applications	4
GST100 FOCUS	1
General Education	3
ENG113 Composition	3

Total Units: 18

Spring Semester

Course	Units
EGR102 Introduction to Engineering Design	4
EGR122 Visualization Languages	3
EGR192 Enigineering Seminar I	1
MAT245 Analytical Geometry & Calculus I	4
General Education	3
General Education	3

Total Units: 18

Summer Semester

Total Units:

Sophomore Year

Fall Semester

Course	Units
EGR221 Data Structures	3
EGR222 Software Engineering	4
EGR225 Discrete Structures	3
MAT255 Analytical Geometry & Calculus II	4
ENG123 Intermediate Composition	3

Total Units: 17

Spring Semester

Course	Units
EGR202 Worldview Reflection I	0
EGR223 Human Computer Interaction	3
EGR226 OS and Networking	3
PHY201 Physics for Engineers I with Lab	4
Approved Science	4
General Education	3

Total Units: 17

Summer Semester

Total Units:

Junior Year

Fall Semester

Course	Units
CSC311 Compiler Design and Languages	3
EGR302 Engineering Design and Documentation	3
EGR305 Engineering Statistics	2
EGR306 Internship Preparation	1
EGR329 Computer Architecture	3
PHY203 Physics for Engineers II w/ Lab	4

Total Units: 16

Spring Semester

Course	Units
CSC312 Algorithms	3
CSC313 Graphics and Visual Computing	3
EGR304 Leadership Cohort	1
EGR325 Database Systems	3
EGR390 Internship	0
EGR404 Worldview Reflection II	0
Computing and Software Elective	3

Total Units: 13

Summer Semester

Course	Units
Cross Cultural Experience	

Total Units:

Senior Year

Fall Semester

Course	Units
CSC 412 Intelligent Systems	3
CSC 413 Information Security and Computer Forensics	3
EGR401 Capstone Design	3
EGR405 Internship Report and Presentation	1
Upper Division General Education Course	3
General Education Course	3

Total Units: 16

Spring Semester

Course	Units
CSC 411 Social and Professional Issues in Computing	1
CSC 414 Theory of Computation	3
EGR324 Engineering Economics	3
EGR402 Engineering Capstone and Presentation	3
EGR404 Worldview Reflection II	0
EGR 425 Real Time and Embedded Development	3
General Education	3

Total Units: 16

Summer Semester

Total Units:

Total Units: 131 (124 units required to graduate)