

# LIBERTY

UNIVERSITY.

School of Engineering and Computational Sciences  
Degree Completion Plan (DCP)

**B.S. in  
Industrial & Systems Engineering**

Name \_\_\_\_\_ ID \_\_\_\_\_

**GENERAL EDUCATION: CORE COMPETENCY REQUIREMENTS**  
(61-65 hours)

**ALL GENERAL EDUCATION COURSES MUST BE CHOSEN FROM THE LIST OF "APPROVED RESIDENTIAL GENERAL EDUCATION & INTEGRATIVE COURSES."** ([www.liberty.edu/gened](http://www.liberty.edu/gened))

**COMMUNICATION** (6 hours)

Course	Hrs.	Sem. Taken	Grade
COMS 101 Speech Communication	3	_____	_____
ENGL 101 Composition and Rhetoric	3	_____	_____

**MATHEMATICS, SCIENCE, & TECHNOLOGY** (19-23 hours)

CRST 290 History of Life	2-3	_____	_____
ENGR 131 Calculus for Engineers	4	_____	_____
ENGR 133 Calculus with MATLAB	1	_____	_____
MATH 132 Calculus/Analytic Geometry II	4	_____	_____
PHYS 231 University Physics I	4	_____	_____
PHYS 232 University Physics II	4	_____	_____
Technology Competency	0-3	_____	_____

**INFORMATION LITERACY** (6 hours)

ENGL 102 Composition and Literature	3	_____	_____
HIEU 201 or 202 or HIUS 221 or 222	3	_____	_____

**CRITICAL THINKING** (9 hours)

ENGL 201, 202, 215, 216, 221, or 222	3	_____	_____
ENGR 270 Technical Writing for Engineers	3	_____	_____
HUMN 101, THEA 101, ARTS 105, or MUSC 103	3	_____	_____

**BIBLICAL WORLDVIEW** (21 hours)

BIBL 105 Old Testament Survey OR ^BIBL 205 Old Testament Life/Literature	3	_____	_____
BIBL 110 New Testament Survey OR ^BIBL 210 New Testament Life/Literature	3	_____	_____
BWVW 101 Biblical Worldview I	2	_____	_____
BWVW 102 Biblical Worldview II	2	_____	_____
EVAN 101 Evangelism and Christian Life	2	_____	_____
PSYC 150 Psychology of Relationships	3	_____	_____
THEO 201 Theology Survey I	3	_____	_____
THEO 202 Theology Survey II	3	_____	_____

^Options available to Honors students

**MAJOR: INDUSTRIAL & SYSTEMS ENGINEERING** (52-57 hours)

Course	Hrs.	Sem. Taken	Grade
ENGR 110 Introduction to Engineering/ Problem Solving	3	_____	_____
ENGI 220 Engineering Economy	3	_____	_____
ENGI 230 Production System	3	_____	_____
ENGI 300 Enterprise Forecasting	3	_____	_____
ENGI 305 Data Analysis Methods and Modeling	3	_____	_____
ENGI 330 Facilities Design	3	_____	_____
ENGI 340 Introduction to Operations Research: Deterministic Models	3	_____	_____
ENGI 350 Intro. to Operations Research Probabilistic Models	3	_____	_____
ENGI 360 Engineering Information Systems	3	_____	_____
ENGR 370 Quality Assurance	3	_____	_____
ENGR 377 Engineering Ethical and Legal Issues	3	_____	_____
ENGR 381 Engineering Design Intro.	3	_____	_____
ENGI 430 Decision Analysis	3	_____	_____
ENGI 450 Human Factors/Ergonomics	3	_____	_____
ENGI 460 Digital Simulation	3	_____	_____
ENGR 481 Engineering Design I	3	_____	_____
ENGR 482 Engineering Design II	3	_____	_____
ENGI 495 Directed Research	1-6	_____	_____

"C" or better is required in all courses

**TECHNICAL ELECTIVES** (9 hours minimum from list of Approved Engineering Courses)

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

"C" or better is required in all courses

**QUANTITATIVE STUDIES** (16 hours)

ENGR 210 Probability/Statistical Methods	3	_____	_____
MATH 231 Calculus/Analytical Geom. III	4	_____	_____
MATH 250 Introduction to Discrete Mathematics	3	_____	_____
MATH 321 Linear Algebra	3	_____	_____
MATH 334 Differential Equations	3	_____	_____

"C" or better is required in all courses

**GRADUATION REQUIREMENTS**

FRSM 101 Freshman Seminar                      REQ. \_\_\_\_ MET \_\_\_\_

All Christian/Community Service requirements must be satisfied before a degree will be awarded.

**TOTAL** – 138 hours minimum required. (Of this total, at least 49 hours must be 300-400 level.)