B.S. in Software Engineering

General Education Requirements

For a full description of Embry-Riddle General Education guidelines, please see the General Education section of this catalog. These minimum requirements are applicable to all degree programs.

Communication Theory & Skills (COM 122, COM 219, COM 221)	9
Lower-Level Humanities	3
Lower-Level Social Sciences	3
Lower or Upper-Level Humanities or Social Sciences	3
Upper-Level Humanities or Social Sciences	3
Computer Science (CS 223)	3
Mathematics (MA 241 & MA 242)	8
Physical and Life Sciences [1]	7
Total Credits	**39**

Professional Preparation		
EGR 101	Introduction to Engineering	2
UNIV 101	College Success	1
Mathematics		
MA 412	Probability and Statistics	3
Math 300/400 [2]		3
Math 300/400 or Science 200/300/400 level elective [3]		3
Computer Engineering		
CEC 220	Digital Circuit Design	3
CEC 222	Digital Circuit Design Laboratory	1
CEC 320	Microprocessor Systems	3
CEC 322	Microprocessor Systems Laboratory	1
CEC 450	Real-Time Embedded Systems	3
CEC 470	Computer Architecture	3
Computer Science		
CS 222	Introduction to Discrete Structures	3
CS 225	Computer Science II	4
CS 225L	Computer Science II Laboratory	0
CS 315	Data Structures and Analysis of Algorithms	3
CS 317	Files and Database Systems	3
CS 332	Organization of Programming Languages	3
CS 362	Computing Theory	3
CS 420	Operating Systems	3
CS 432	Information and Computer Security	3
Software Engineering		
SE 300	Software Engineering Practices	3
SE 310	Analysis and Design of Software Systems	3
SE 320	Software Construction	3
SE 420	Software Quality Assurance	3
SE 450	Software Team Project I	3
SE 451	Software Team Project II	3
Required Electives		
Specified Electives [4]		9
Technical Elective [5]		3
Total Credits		**81**

Total Degree Credits	**120**

[1] To satisfy the 7 credit hours requirement, choose one course from the following list (3 credits):

- CHM 111, GEO 215, WX 201, PS 150, PS 227

And one lecture course from the following plus its corresponding lab (4 credits):

- BIO 120 and BIO 120L, or CHM 110 and CHM 110L, or PS 224 and PS 224L, or PS 226 and PS 226L,or PS 250 and PS 253

[2] To be selected from an approved list of courses maintained by the Program Coordinator.

[3] Not MA 305, or PS 226, or PS 227.

[4] Must be approved by Program Coordinator.

[5] CEC/CS/EE/SE/SYS Upper-Level Elective, with approval from the Program Coordinator.