General Education

General Education Program

Embry-Riddle's General Education Program reflects the University's commitment to "provide a transformative educational experience." Completing the General Education Program will provide students with a broad range of knowledge from a variety of disciplines: humanities, social and natural sciences, and mathematics. By engaging with and investigating ideas and methodologies from several disciplines, students will also recognize interrelationships among the disciplines. Principles taught in general education courses elevate students' ability to conduct meaningful research, work together in diverse and complex teams, and analyze and communicate both scientific and cultural concepts.

Comprising nearly one-third of every undergraduate degree program, the General Education Program ensures that students possess the attributes expected of all university graduates. Students will gain competence in written and oral communication, practice reasoning and critical thinking skills, and demonstrate technological literacy. As they progress into their degree courses and eventually the workplace, students will be challenged to apply these important concepts in unlimited ways, such as graduate research, business presentations, and personal and professional decision-making. Completion of the General Education Program helps students make informed value judgments, expand knowledge and understanding of themselves, and lead meaningful, responsible, and satisfying lives as individuals, professionals, and concerned members of their society and the world.

ERAU's General Education Program provides students with the opportunity to acquire skills in the following areas:

Collaborative Learning
Students will participate effectively in teams.

Communication
Students will express ideas effectively for a variety of audiences, contexts, and purposes.

Critical Thinking
Students will evaluate information from multiple perspectives to develop reasoned conclusions.

Cultural Literacy
Students will analyze how practices, values, or artifacts shape and are shaped by culture.

Information Literacy
Students will synthesize information appropriately to explore problems.

Quantitative Reasoning
Students will interpret data from numeric, tabular, graphical, and related formats to solve problems or infer conclusions.

Scientific Literacy
Students will evaluate scientific concepts, findings, and methodologies to draw logical conclusions.

Technological Literacy
Students will evaluate technology for appropriate applications.

Associate Degree General Education Requirements

Candidates for AS degrees must complete the general education credit hours required by their respective programs. The university is committed to ensuring that students possess a general education knowledge that will help them be successful in whatever degree program they select.

State of Minnesota Course Requirement

Worldwide Campus students residing in the State of Minnesota are required to comply with Minnesota Degree Standards which require students to complete four (4) credits of Humanities. Since Embry-Riddle Aeronautical University – Worldwide baccalaureate degree programs require a minimum of three (3) credits in Humanities, an additional one

(1) hour of Humanities credit is required. Students should seek the assistance of their Academic Advisor if there are questions. Worldwide Academic Advisors are assigned based on the student's college affiliation (COAS, COA, COB) and primary program of study. Assigned Academic Advisor contact information can be found in the Campus Solutions Student Center.

State of Nevada Course Requirement

All students who obtain their degree from an Embry-Riddle Worldwide Campus in Nevada must complete a course that covers the United States and State Constitution. Students may satisfy this requirement by completing GOVT 320 American National Government or through transfer credit of an equivalent course from another institution. This requirement does not apply to students taking courses through the Online Campus outside Nevada.

Candidates for bachelor's degrees must complete course work in the following areas:

Communication Theory and Skills	9
Computer Science/Information Technology	3
Mathematics	6
Physical and Life Sciences	6
Humanities and Social Sciences	12
3 hours of lower-level Humanities	
3 hours of lower-level Social Science	
3 hours of lower-level or upper-level Humanities or Social Science	
3 hours of upper-level Humanities or Social Science	
Total Credits	**36**

General Education Courses

General Education courses may be chosen from the list below, assuming prerequisites are met. New courses added to the General Education list may be used for previous catalogs, as long as the previous catalog requirement allows selection of any course from the General Education course list rather than a specific course. Check with your program specific requirements before utilizing the list below.

Communication Theory and Skills (9 credits)		
COM 122	English Composition	3
COM 219	Speech	3
COM 221	Technical Report Writing	3
COM 222	Business Communication	3
COM 223	Intelligence Writing	3
COM 420	Advanced Technical Communication I	1
COM 430	Advanced Technical Communication II	2
LCH 310	Speech in Chinese	3
Computer Science/Information Technology (3 credits)		
CI 119	Introduction to Cyber Security for Non-Majors	3
CS 118	Fundamentals of Computer Programming	3
CS 125	Computer Science I	4
CS 213	Introduction to Computer Networks	3
CS 225	Computer Science II	4
CS 305	Database Systems and Data Mining	3
CS 332	Organization of Programming Languages	3
CS 455	Artificial Intelligence	3
EGR 115	Introduction to Computing for Engineers	3
IT 109	Introduction to Computers and Applications	3
IT 210	Web Page Authoring and Design	3
Mathematics (6 credits)		
BA 222	Business Analytics Tools	3
MA 111	Pre-Calculus for Aviation	3
MA 112	Applied Calculus for Aviation	3

MA 120	Quantitative Methods I	3
MA 140	College Algebra	3
MA 142	Trigonometry	3
MA 143	Precalculus Essentials	3
MA 145	College Algebra and Trigonometry	5
MA 220	Quantitative Methods II	3
MA 222	Business Statistics	3
MA 225	Introduction to Discrete Structures	3
MA 241	Calculus and Analytical Geometry I	4
MA 242	Calculus and Analytical Geometry II	4
MA 243	Calculus and Analytical Geometry III	4
MA 314	Applied Linear Algebra & Statistics	3
MA 320	Decision Mathematics	3
MA 335	Introduction to Linear and Abstract Algebra	3
MA 341	Introduction to Mathematical Analysis	3
MA 345	Differential Equations and Matrix Methods	4
MA 348	Numerical Analysis I	3
MA 404	Statistics and Research Methods	3
MA 412	Probability and Statistics	3
MA 432	Linear Algebra	3
MA 433	Introduction to Optimization	3
MA 435	Linear and Abstract Algebra II	3
MA 441	Mathematical Methods for Engineering and Physics I	3
MA 442	Mathematical Methods for Engineering and Physics II	3
MA 443	Complex Variables	3
PSY 226	Statistics for Organizational Analysis and Research	3

Physical and Life Science (6 credits) - One course must include a lab.

BIO 120	Foundations of Biology I	3
BIO 120L	Foundations of Biology I Laboratory	1
BIO 121	Foundations of Biology II	3
BIO 121L	Foundations of Biology II Lab	1
BIO 142	Intro to Environmental Science	3
BIO 205	Plant Biology	3
BIO 205L	Plant Biology Lab	1
BIO 215	Genetics	3
BIO 215L	Genetics Laboratory	1
BIO 216	Microbiology	3
BIO 216L	Microbiology Laboratory	1
BIO 220	Wildlife Management	3
BIO 245	Natural History of the Region	3
BIO 245L	Natural History of the Region Laboratory	1
BIO 302	Instrumental Analysis and Trace Evidence	3
BIO 302L	Instrumental Analysis and Trace Evidence Lab	1
BIO 305	Human Anatomy and Physiology I	3
BIO 305L	Human Anatomy & Physiology Laboratory	1
BIO 306	Human Anatomy and Physiology II	3
BIO 306L	Human Anatomy and Physiology II Laboratory	1
BIO 309	Principles of Ecology	4
BIO 309L	Principles of Ecology Lab	0
BIO 312	Plant Identification	3
BIO 313	Riparian Ecology	3
BIO 315	Ornithology	3
BIO 315L	Ornithology Lab	1
BIO 318	Mammalogy	4
BIO 330	Environmental Consulting	3

BIO 403	Wildlife and Airports	3
BIO 405	Molecular and Cell Biology	3
BIO 405L	Molecular and Cell Biology Laboratory	1
BIO 406	Forensic DNA Analysis	3
BIO 406L	Forensic DNA Analysis Laboratory	1
BIO 420	Wildlife Management Techniques	3
BIO 444	Immunology	3
CHM 110	General Chemistry I	3
CHM 110L	General Chemistry I Laboratory	1
CHM 111	General Chemistry II	3
CHM 111L	General Chemistry II Laboratory	1
CHM 113	General Chemistry for Engineering	3
CHM 140	Chemistry for Engineers	4
CHM 210	Organic Chemistry I	3
CHM 210L	Organic Chemistry I Laboratory	1
CHM 211	Organic Chemistry II	3
CHM 211L	Organic Chemistry II Laboratory	1
CHM 310	Biochemistry	3
CHM 310L	Biochemistry Laboratory	1
GEO 210	Introduction to Geographic Information Systems	3
GEO 215	Introduction to Geoscience	3
GEO 310	Advanced Geographic Information Systems	3
GEO 350	Introduction to Remote Sensing with GIS	3
HF 312	Ergonomics and Bioengineering	3
PS 113	Introductory Physics I	3
PS 113L	Introductory Physics I Laboratory	1
PS 117	Introductory Physics II	3
PS 117L	Introductory Physics II Lab	1
PS 161	Physics I & II for Engineers	4
PS 204	General Astronomy	3
PS 208	Physics II	3
PS 215	Physics I	3
PS 216	Physics I Laboratory	1
PS 219	Physics III	3
PS 221	Intermediate Physics Laboratory	2
PS 222	Intermediate Astronomy	3
PS 232	Computational Methods in the Physical Sciences	3
PS 250	Physics for Engineers III	3
PS 253	Physics Laboratory for Engineers	1
PS 321	Classical Mechanics I	3
PS 322	Classical Mechanics II	3
PS 330	Electricity and Magnetism I	3
PS 331	Electricity and Magnetism II	3
SIS 220	Investigative Methodology and Forensic Science	4
WX 201	Survey of Meteorology	3
WX 203L	Survey of Meteorology Laboratory	1
WX 261	Applied Climatology	3
WX 270	Weather Information Systems	3
WX 301	Aviation Weather	3
WX 312	Mountain Meteorology	3
WX 321	Atmospheric Environmental Studies	3
WX 322	Space Weather	3
WX 353	Thermodynamics of the Atmosphere	3
WX 354	Dynamics of the Atmosphere	3
WX 363	Thunderstorms	3
WX 364	Weather for Aircrews	3

WX 365	Satellite and Radar Weather Interpretation	3
WX 390	Atmospheric Physics	3
WX 420	Advanced Atmospheric Thermodynamics	3
WX 427	Forecasting Techniques	3
WX 458	All Hazards Support, Modeling and Mapping.	3
WX 490	Advanced Dynamic Meteorology I	3
WX 491	Advanced Dynamic Meteorology II	3
WX 492	Advanced Synoptic Meteorology	3

Humanities and Social Science (12 credits) - Please verify specification of curriculum requirements.

Humanities

HU 112	The Rhetoric of Social Justice Movements & Public Advocacy	3
HU 118	Digital Publics & Rhetorical Theory	3
HU 131	History of Jazz	3
HU 132	History of Rock and Roll	3
HU 145	Themes in the Humanities	3
HU 146	Music Appreciation	3
HU 147	Digital Media Storytelling	3
HU 148	Art and History of Podcasting	3
HU 149	Writing Games: Video Games as Rhetorical Texts	3
HU 162	Art of the Prehistoric and Ancient World: Caves, Kings, and Pyramids	3
HU 163	Art of the Classical World: Gods, Heroes, and Empire	3
HU 164	Foundations of Visual Art: An Examination of Visual Culture	3
HU 165	Travel and Adventure Nonfiction Literature	3
HU 171	The Origins of Film in America and Europe	3
HU 172	Exploring Science Fiction Films	3
HU 173	Myth and the Marvel Cinematic Universe	3
HU 175	Masterpieces: Art, Music and Literature of Europe Renaissance through the Nineteenth Century	3
HU 320	Aesthetics of Visual and Musical Arts	3
HU 325	Exploring Film	3
HU 330	Values and Ethics	3
HU 332	Cross-Cultural Communication	3
HU 335	Technology and Modern Civilization	3
HU 345	Comparative Religions	3
HU 355	Creative Writing	3
HU 363	Communication and Society	3
HU 415	Nonverbal Communication	3
LCH 205	Modern Chinese Media	3
LCH 206	Contemporary Chinese Literature	3
LCH 306	Asian Literature	3
LCH 307	Personality and Profiling	3
LCH 308	Foundations of Terrorism	3
LCH 400	Eastern and Western Civilization	3
LCH 402	Applied Cross-Cultural Communications	3

Social Science

EC 200	An Economic Survey	3
EC 210	Microeconomics	3
EC 211	Macroeconomics	3
EC 225	Engineering Economics	3
EC 302	History of Economic Thought	3
EC 312	Money and Banking	3
EC 315	Managerial Economics	3
EC 316	Environmental Economics and Policy	3

EC 317	Global Economics, Politics and Culture	3
HF 300	Human Factors I: Principles and Fundamentals	3
HF 306	Human Factors III: Performance Processes	4
HF 310	Human-Computer Interaction	3
PSY 101	Introduction to Psychology	3
PSY 222	Introduction to Industrial/Organizational Psychology	3
PSY 306	Psychology of Deception Detection	3
PSY 311	Sensation, Perception, and Cognition	3
PSY 313	Personality and Profiling	3
PSY 315	Cognitive Psychology	3
PSY 320	Aviation Psychology	3
PSY 321	Psychology of Gaming	3
PSY 322	Research Design	4
PSY 326	Group and Team Behavior	3
PSY 335	Physiological Psychology	3
PSY 336	Forensic Psychology	3
PSY 337	Criminality	3
PSY 345	Training and Development	3
PSY 350	Social Psychology	3
PSY 365	Abnormal Psychology	3
PSY 370	Occupational Health & Performance	3
PSY 401	Psychology of Leadership	3
PSY 410	Personnel Selection and Assessment	3
PSY 412	Drugs, Society, and Crime	3
PSY 494	Tests and Measurements Theory	3
SIS 200	Introduction to the U.S. Legal System	3
SS 110	World History	3
SS 120	U.S. History	3
SS 130	History of Aviation in America	3
SS 204	Introduction to Geography	3
SS 214	Culture, History and Language	3
SS 290	History of Modern Europe	3
SS 304	Islam and Arabic Culture	3
SS 308	Studies in Middle Eastern History and Culture	3
SS 311	U.S Military History 1775-1900	3
SS 313	Modern Middle East in World Affairs	3
SS 314	Culture, History and Language	3
SS 320	Government of the U.S.	3
SS 321	U.S. Military History 1900-Present	3
SS 325	International Studies	3
SS 326	Russian-U.S. Relations	3
SS 327	International Relations	3
SS 333	U.S. - Asian Relations	3
SS 336	The Modern Middle East in World Affairs	3
SS 340	Modern U.S. Foreign Policy	3
SS 363	Inter-American Relations	3