

# B.S. in Aviation Psychology

Embry-Riddle's B.S. in Aviation Psychology at the Prescott Campus prepares students to understand and improve how people think, decide, communicate, and perform in aviation and other high-stakes environments. The program blends psychology, human factors, organizational behavior, and aviation-focused coursework to examine topics such as attention, perception, stress, fatigue, teamwork, training, automation, decision-making, safety, and human performance. Students graduate with a strong foundation in psychological science and applied research, along with transferable skills in analysis, communication, leadership, assessment, and systems thinking.

Aviation Psychology students benefit from Embry-Riddle Prescott's distinctive aviation environment, including access to a major flight line, advanced flight simulators, air traffic control training facilities, and a campus community centered on aviation operations, safety, and performance. Faculty work closely with students on research connected to aviation and industry, including pilot performance, crew coordination, cockpit technology, stress, airline quality, safety, training, and organizational effectiveness. This hands-on, research-driven approach prepares students to contribute to aviation, aerospace, safety, human factors, training, operations, and other industries where human performance matters.

Throughout their studies, students can pursue undergraduate research, internships, consulting and applied projects, professional conferences, and senior capstone experiences that connect classroom learning to real-world challenges. Students may also build community and professional networks through organizations such as Psychology Club, Psi Chi, Women in Aviation, the Human Factors and Ergonomics Society, the Prescott Air Traffic Control Club, and other aviation-focused student groups. Qualified students may also pursue accelerated graduate pathways in areas such as Human Factors and Occupational Safety Management, creating a strong foundation for both immediate career opportunities and advanced study.

## Program-Level Student Learning Outcomes

### Students will:

- Assess leadership skills, human performance, and occupational health within aviation and aerospace operational contexts.
- Communicate research findings and aviation-related psychological insights effectively to diverse audiences, including industry professionals, regulators, and the public.
- Apply professional and ethical practices, legal regulations, and industry standards to psychological work in aviation and aerospace settings.
- Conduct empirical research on human performance, decision-making, and safety in aviation and other high-reliability environments.
- Evaluate psychological principles and evidence-based practices in the design, implementation, and assessment of personnel selection, training, and crew resource management programs.
- Apply human factors and safety science principles to optimize systems, environments, and organizational performance in aviation and aerospace industries.

## Prescott Program Requirements

|                                |            |
|--------------------------------|------------|
| General Education Requirements | 36         |
| Core Requirements              | 60         |
| Minor/Electives                | 25         |
| <b>Total Credits</b>           | <b>121</b> |

## Program Details

The Bachelor of Science in Aviation Psychology program requires successful completion of a minimum of 121 credit hours. The program may be completed in eight semesters, or four years, assuming appropriate background and full-time enrollment. Students pursuing this undergraduate degree must earn a minimum cumulative grade point average (CGPA) of 2.00 for all work completed at the University. Students complete coursework in general education, mathematics and science, and psychological science. Completion of a minor is strongly recommended, but not required. The courses necessary to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students are responsible for ensuring that all prerequisite and degree requirements are met prior to enrollment in advanced coursework.

## General Education Requirements

|                                                   |           |
|---------------------------------------------------|-----------|
| Communication                                     | 9         |
| COMM 122    English Composition                   |           |
| Humanities - Lower Level                          | 3         |
| Social Sciences - Lower Level                     | 3         |
| PSYC 101    Introduction to Psychology            |           |
| Humanities/Social Sciences - Lower or Upper Level | 3         |
| Humanities/Social Sciences - Upper Level          | 3         |
| Computer Science/Information Technology           | 3         |
| Mathematics                                       | 6         |
| Physical/Life Sciences                            | 6         |
| BIOL 120    Foundations of Biology I              |           |
| BIOL 120L   Foundations of Biology I Laboratory   |           |
| <b>Total Credits</b>                              | <b>36</b> |

## Core Requirements

|                      |                                                      |           |
|----------------------|------------------------------------------------------|-----------|
| ASCI 387             | Crew Resource Management                             | 3         |
| AVSF 210             | Introduction to Aerospace Safety                     | 3         |
| AVSF 320             | Human Factors in Aviation Safety                     | 3         |
| HFCT 300             | Human Factors Principles and Fundamentals            | 3         |
| HFCT 307             | Human Factors Performance Processes                  | 3         |
| HFCT 307L            | Performance Processes Laboratory                     | 1         |
| HFCT 315             | Automation and Systems Issues in Aviation            | 3         |
| PSYC 103             | Professional Development in Psychology               | 1         |
| PSYC 222             | Introduction to Industrial/Organizational Psychology | 3         |
| PSYC 226             | Statistical Analysis for the Social Sciences *       | 3         |
| PSYC 315             | Cognitive Psychology                                 | 3         |
| PSYC 320             | Aviation Psychology                                  | 3         |
| PSYC 323             | Research Design *                                    | 3         |
| PSYC 323L            | Research Methods Laboratory *                        | 1         |
| PSYC 335             | Physiological Psychology                             | 3         |
| PSYC 345             | Training and Development                             | 3         |
| PSYC 350             | Social Psychology                                    | 3         |
| PSYC 370             | Occupational Health and Performance                  | 3         |
| PSYC 401             | Psychology of Leadership                             | 3         |
| PSYC 410             | Personnel Selection and Assessment                   | 3         |
| PSYC 445             | Tests and Measurements Theory                        | 3         |
| PSYC 490             | Psychology Capstone                                  | 3         |
| <b>Total Credits</b> |                                                      | <b>60</b> |

\* PSYC 226 and PSYC 323 / PSYC 323L are rigorous, foundational courses in the field of psychological sciences. Therefore, both must be taken at ERAU to ensure students receive the highest quality

of instruction, and benefit from the university's unique academic resources.

Minor/Electives

|                         |           |
|-------------------------|-----------|
| Minor or Open Electives | 25        |
| <b>Total Credits</b>    | <b>25</b> |

Suggested Plan of Study

Year One

| Requirements                            | Credits   |
|-----------------------------------------|-----------|
| COMM 122 - English Composition          | 3         |
| Computer Science/Information Technology | 3         |
| Mathematics                             | 3         |
| PSYC 101 - Introduction to Psychology   | 3         |
| Open Elective                           | 3         |
| <b>Semester Hours</b>                   | <b>15</b> |

| Requirements                                      | Credits   |
|---------------------------------------------------|-----------|
| BIOL 120 - Foundations of Biology I               | 3         |
| BIOL 120L - Foundations of Biology I Laboratory   | 1         |
| Humanities - Lower Level                          | 3         |
| Mathematics                                       | 3         |
| Open Elective                                     | 3         |
| PSYC 103 - Professional Development in Psychology | 1         |
| PSYC 320 - Aviation Psychology                    | 3         |
| <b>Semester Hours</b>                             | <b>17</b> |

Total Credits

Total Hours for All Requirements: 32

Year Two

| Requirements                                                    | Credits   |
|-----------------------------------------------------------------|-----------|
| AVSF 210 - Introduction to Aerospace Safety                     | 3         |
| HFCT 300 - Principles and Fundamentals                          | 3         |
| PSYC 222 - Introduction to Industrial/Organizational Psychology | 3         |
| PSYC 350 - Social Psychology                                    | 3         |
| Open Elective                                                   | 3         |
| <b>Semester Hours</b>                                           | <b>15</b> |

| Requirements                                            | Credits   |
|---------------------------------------------------------|-----------|
| HFCT 307 - Performance Processes                        | 3         |
| HFCT 307L - Performance Processes Laboratory            | 1         |
| Communication                                           | 3         |
| Physical/Life Sciences                                  | 2         |
| Open Elective                                           | 3         |
| PSYC 226 - Statistical Analysis for the Social Sciences | 3         |
| <b>Semester Hours</b>                                   | <b>15</b> |

Total Credits

Total Hours for All Requirements: 30

Year Three

| Requirements                                                          | Credits   |
|-----------------------------------------------------------------------|-----------|
| AVSF 320 - Human Factors in Aviation Safety                           | 3         |
| PSYC 323 - Research Design                                            | 3         |
| PSYC 323L - Research Methods Laboratory                               | 1         |
| PSYC 345 - Training and Development or 401 - Psychology of Leadership | 3         |
| PSYC 315 - Cognitive Psychology                                       | 3         |
| Open Elective                                                         | 3         |
| <b>Semester Hours</b>                                                 | <b>16</b> |

| Requirements                                                                               | Credits   |
|--------------------------------------------------------------------------------------------|-----------|
| Humanities/Social Sciences - Lower or Upper Level                                          | 3         |
| Open Elective                                                                              | 3         |
| Communication                                                                              | 3         |
| PSYC 370 - Occupational Health and Performance or 410 - Personnel Selection and Assessment | 3         |
| ASCI 387 - Crew Resource Management                                                        | 3         |
| <b>Semester Hours</b>                                                                      | <b>15</b> |

Total Credits

Total Hours for All Requirements: 31

Year Four

| Requirements                                                                               | Credits   |
|--------------------------------------------------------------------------------------------|-----------|
| Open Elective                                                                              | 3         |
| Humanities/Social Sciences - Upper Level                                                   | 3         |
| HFCT 315 - Automation and Systems Issues in Aviation                                       | 3         |
| PSYC 370 - Occupational Health and Performance or 410 - Personnel Selection and Assessment | 3         |
| <b>Semester Hours</b>                                                                      | <b>12</b> |

| Requirements                                                          | Credits   |
|-----------------------------------------------------------------------|-----------|
| Open Elective                                                         | 3         |
| PSYC 345 - Training and Development or 401 - Psychology of Leadership | 3         |
| PSYC 445 - Tests and Measurements Theory                              | 3         |
| PSYC 490 - Psychology Capstone                                        | 3         |
| PSYC 335 - Physiological Psychology                                   | 3         |
| <b>Semester Hours</b>                                                 | <b>15</b> |

Total Credits

Total Hours for All Requirements: 27