

# AVIATION TECHNOLOGY: FLIGHT AND MAINTENANCE (B.S.) - RESIDENT

**Important:** This degree plan is effective for those starting this degree program in fall 2024 through summer 2025. This degree plan will remain in effect for students who do not break enrollment or who do not change degree programs, concentrations, or cognates.

## General Education/Foundational Skills Requirements

| Code   | Title   | Hours        |
|--|---|--------------|
| <b>Communication &amp; Information Literacy</b> <sup>1</sup>             |   |              |
| ENGL 101   | Composition and Rhetoric                        | 3            |
|  | Communications Elective                         | 3            |
|  | Information Literacy Elective                   | 3            |
|  | Information Literacy Elective                   | 3            |
| <b>Technological Solutions &amp; Quantitative Reasoning</b> <sup>1</sup> |   |              |
| UNIV 101   | Foundational Skills                             | 1            |
|  | Math Elective MATH 114 or higher                | 3            |
|  | Technology Competency <sup>2</sup>              | 0-3          |
| <b>Critical Thinking</b> <sup>1</sup>                                    |   |              |
| RLGN 105   | Introduction to Biblical Worldview <sup>3</sup> | 2            |
|  | Critical Thinking Elective                      | 3            |
| <b>Civic &amp; Global Engagement</b> <sup>1</sup>                        |   |              |
| EVAN 101   | Evangelism and the Christian Life <sup>3</sup>  | 2            |
|  | Cultural Studies Elective                       | 3            |
| <b>Social &amp; Scientific Inquiry</b> <sup>1</sup>                      |   |              |
|  | Natural Science Elective                        | 3            |
|  | Social Science Elective                         | 3            |
| <b>Christianity &amp; Contexts</b> <sup>1</sup>                          |   |              |
| BIBL 105   | Old Testament Survey                            | 2            |
| BIBL 110   | New Testament Survey                            | 2            |
| THEO 201   | Theology Survey I <sup>3</sup>                  | 2            |
| THEO 202   | Theology Survey II <sup>3</sup>                 | 2            |
| <b>Total Hours</b>   |   | <b>40-43</b> |

<sup>1</sup> Refer to the list of approved general education electives before enrolling in foundational skill requirements

<sup>2</sup> All students must pass the Computer Assessment OR complete applicable INFT course

<sup>3</sup> Students transferring in 45 or more UG credit hours will have the requirements of RLGN 105 and EVAN 101 waived; Students transferring in 60 or more UG credit hours will also have the requirements of THEO 201 and THEO 202 waived

## Major Requirements

| Code                              | Title   | Hours    |
|-----------------------------------|---|----------|
| <b>Major Foundational Courses</b> |   |          |
| MATH 201                          | Introduction to Probability and Statistics <sup>1</sup> | 3        |
| <b>Total Hours</b>                |   | <b>3</b> |

<sup>1</sup> Course may fulfill select general education requirements.

| Code              | Title                                      | Hours |
|-------------------|--|-------|
| <b>Major Core</b> |  |       |
| AVIA 102          | Aviation Foundations                       | 3     |
| AVIA 104          | Flight Operations Orientation <sup>1</sup> | 0-3   |
| AVIA 210          | Private Ground I                           | 3     |
| AVIA 215          | Private Ground II                          | 3     |
| AVIA 220          | Private Flight I                           | 3     |
| AVIA 225          | Private Flight II                          | 3     |
| AVIA 245          | Aviation Leadership                        | 3     |
| AVIA 300          | Aviation Safety                            | 3     |
| AVIA 310          | Instrument Ground                          | 3     |
| AVIA 315          | Commercial Ground                          | 3     |
| AVIA 320          | Instrument Flight                          | 3     |
| AVIA 322          | Commercial Flight I: Accelerated           | 3     |
| AVIA 324          | Commercial Flight II: Accelerated          | 3     |
| AVIA 460          | Professional Pilot Career Strategies       | 3     |
| or AVIA 461       | Aviation Career Strategies                 |       |
| AVIA 491          | Capstone: Advanced Research Concepts       | 3     |
| AVMT 101          | Maintenance Mathematics                    | 1     |
| AVMT 102          | Aircraft Sciences                          | 3     |
| AVMT 103          | Maintenance Physics                        | 1     |
| AVMT 104          | Maintenance Practices I                    | 3     |
| AVMT 105          | Aircraft Weight and Balance                | 1     |
| AVMT 106          | Maintenance Practices II                   | 3     |
| AVMT 150          | General Curriculum Final                   | 0     |
| AVMT 201          | Airframe Auxiliary Systems I               | 1     |
| AVMT 202          | Aircraft Electrical Systems                | 3     |
| AVMT 203          | Aircraft Auxiliary Systems II              | 2     |
| AVMT 204          | Airframe Structures I                      | 3     |
| AVMT 206          | Airframe Structures II                     | 2     |
| AVMT 207          | Hydraulic and Pneumatic Systems            | 1     |
| AVMT 208          | Airframe Assembly and Inspection           | 2     |
| AVMT 209          | Landing Gear Systems                       | 2     |
| AVMT 211          | Fire Protection                            | 1     |
| AVMT 213          | Powerplant Fuel Systems                    | 2     |
| AVMT 214          | Engine Electrical Systems                  | 3     |
| AVMT 215          | Powerplant Lubrication Systems             | 1     |
| AVMT 219          | Engine Instrument Systems                  | 1     |
| AVMT 221          | Propeller Systems                          | 2     |
| AVMT 223          | Engine Inspections                         | 1     |
| AVMT 250          | Airframe Curriculum Final                  | 0     |
| AVMT 312          | Reciprocating Engine Technology            | 3     |
| AVMT 320          | Turbine Engine Technology                  | 3     |
| AVMT 350          | Powerplant Curriculum Final                | 0     |

| Code                  | Title | Hours        |
|-----------------------|-------|--------------|
| Elective <sup>2</sup> |       | 3            |
| Elective <sup>2</sup> |       | 3            |
| <b>Total Hours</b>    |       | <b>93-96</b> |

<sup>1</sup> AVIA 104 is required for students who do not complete private pilot training at Liberty University's residential campus

<sup>2</sup> Choose any 300-400 level course not already applying to the degree

All applicable prerequisites must be met

## Graduation Requirements

- 137 Total hours
- 2.0 Overall grade point average
- 34.25 Hours must be upper-level courses (300-400 level)
- **Grade of 'C'** Minimum required for all upper-level courses in the major and all AVMT courses
- 25% Of major and cognate taken through Liberty University
- 34.25 Hours must be completed through Liberty University
- **Grad App** Submission of Degree Completion Application must be completed within the last semester of a student's anticipated graduation date
- **CSER** All requirements must be satisfied before a degree will be awarded

## Course Sequence

| Course                              | Title                              | Hours     |
|-------------------------------------|------------------------------------|-----------|
| <b>Freshman Year</b>                |                                    |           |
| <b>First Semester</b>               |                                    |           |
| ENGL 101                            | Composition and Rhetoric           | 3         |
| INQR 101                            | Inquiry                            | 1         |
| RLGN 105                            | Introduction to Biblical Worldview | 2         |
| UNIV 101                            | Foundational Skills                | 1         |
| Math Elective <sup>MATH 201 1</sup> |                                    | 3         |
| AVIA 102                            | Aviation Foundations               | 3         |
| AVIA 245                            | Aviation Leadership                | 3         |
| CSER                                |                                    |           |
| <b>Hours</b>                        |                                    | <b>16</b> |
| <b>Second Semester</b>              |                                    |           |
| AVMT 101                            | Maintenance Mathematics            | 1         |
| AVMT 102                            | Aircraft Sciences                  | 3         |
| AVMT 103                            | Maintenance Physics                | 1         |
| AVMT 104                            | Maintenance Practices I            | 3         |
| AVMT 105                            | Aircraft Weight and Balance        | 1         |
| AVMT 106                            | Maintenance Practices II           | 3         |
| AVMT 150                            | General Curriculum Final           | 0         |
| AVMT 201                            | Airframe Auxiliary Systems I       | 1         |
| AVMT 202                            | Aircraft Electrical Systems        | 3         |
| AVMT 209                            | Landing Gear Systems               | 2         |
| CSER                                |                                    | 0         |
| <b>Hours</b>                        |                                    | <b>18</b> |
| <b>Third Semester</b>               |                                    |           |
| AVMT 203                            | Aircraft Auxiliary Systems II      | 2         |
| AVMT 204                            | Airframe Structures I              | 3         |

| Course       | Title                            | Hours     |
|--------------|----------------------------------|-----------|
| AVMT 206     | Airframe Structures II           | 2         |
| AVMT 207     | Hydraulic and Pneumatic Systems  | 1         |
| AVMT 208     | Airframe Assembly and Inspection | 2         |
| AVMT 211     | Fire Protection                  | 1         |
| AVMT 219     | Engine Instrument Systems        | 1         |
| AVMT 221     | Propeller Systems                | 2         |
| AVMT 223     | Engine Inspections               | 1         |
| AVMT 250     | Airframe Curriculum Final        | 0         |
| <b>Hours</b> |                                  | <b>15</b> |

### Sophomore Year

#### First Semester

|              |                                 |           |
|--------------|---------------------------------|-----------|
| AVMT 213     | Powerplant Fuel Systems         | 2         |
| AVMT 214     | Engine Electrical Systems       | 3         |
| AVMT 215     | Powerplant Lubrication Systems  | 1         |
| AVMT 312     | Reciprocating Engine Technology | 3         |
| AVMT 320     | Turbine Engine Technology       | 3         |
| AVMT 350     | Powerplant Curriculum Final     | 0         |
| CSER         |                                 | 0         |
| <b>Hours</b> |                                 | <b>12</b> |

#### Second Semester

|                                       |                                   |              |
|---------------------------------------|-----------------------------------|--------------|
| BIBL 105                              | Old Testament Survey              | 2            |
| EVAN 101                              | Evangelism and the Christian Life | 2            |
| Natural Science Elective <sup>1</sup> |                                   | 3            |
| Social Science Elective <sup>1</sup>  |                                   | 3            |
| Technology Competency <sup>2</sup>    |                                   | 0-3          |
| AVIA 210                              | Private Ground I                  | 3            |
| CSER                                  |                                   | 0            |
| <b>Hours</b>                          |                                   | <b>13-16</b> |

#### Third Semester

|              |                   |          |
|--------------|-------------------|----------|
| AVIA 215     | Private Ground II | 3        |
| AVIA 220     | Private Flight I  | 3        |
| <b>Hours</b> |                   | <b>6</b> |

### Junior Year

#### First Semester

|   |                                |           |
|---|--------------------------------|-----------|
| BIBL 110                                | New Testament Survey           | 2         |
| RSCH 201                                | Research                       | 3         |
| Communications Elective <sup>1</sup>    |                                | 3         |
| Critical Thinking Elective <sup>1</sup> |                                | 3         |
| AVIA 225                                | Private Flight II <sup>3</sup> | 3         |
| CSER                                    |                                | 0         |
| <b>Hours</b>                            |                                | <b>14</b> |

#### Second Semester

|  |                                  |           |
|--|----------------------------------|-----------|
| THEO 201                                   | Theology Survey I                | 2         |
| Information Literacy Elective <sup>1</sup> |                                  | 3         |
| AVIA 300                                   | Aviation Safety                  | 3         |
| AVIA 310                                   | Instrument Ground                | 3         |
| AVIA 322                                   | Commercial Flight I: Accelerated | 3         |
| CSER                                       |                                  | 0         |
| <b>Hours</b>                               |                                  | <b>14</b> |

| Course                                     | Title   | Hours          |
|--|---|----------------|
| <b>Senior Year</b>                         |   |                |
| <b>First Semester</b>                      |   |                |
| THEO 202                                   | Theology Survey II  | 2              |
| AVIA 315                                   | Commercial Ground   | 3              |
| AVIA 320                                   | Instrument Flight   | 3              |
| AVIA 460<br>or AVIA 461                    | Professional Pilot Career Strategies<br>or Aviation Career Strategies | 3              |
| Elective <sup>4</sup>                      |   | 3              |
| CSER                                       |   | 0              |
| <b>Hours</b>                               |   | <b>14</b>      |
| <b>Second Semester</b>                     |   |                |
| Cultural Studies Elective <sup>1</sup>     |   | 3              |
| Information Literacy Elective <sup>1</sup> |   | 3              |
| AVIA 324                                   | Commercial Flight II: Accelerated                                     | 3              |
| AVIA 491                                   | Aeronautics Capstone: Advanced Research Concepts                      | 3              |
| Elective <sup>4</sup>                      |   | 3              |
| CSER                                       |   | 0              |
| <b>Hours</b>                               |   | <b>15</b>      |
| <b>Total Hours</b>                         |   | <b>137-140</b> |

<sup>1</sup> Refer to the list of approved general education electives at General Education Courses before enrolling in foundational skills requirements

<sup>2</sup> All students must pass the Computer Assessment OR complete applicable INFT course; refer to [www.liberty.edu/computerassessment](http://www.liberty.edu/computerassessment) for more information

<sup>3</sup> AVIA 104 is required for students who do not complete private pilot training at Liberty University's residential campus

<sup>4</sup> Choose any 300-400 level course not already applying to the degree

Additional course sequences may be available for those students with Private Pilot Licenses and other certifications. Students should contact their Academic Advisor and the School of Aeronautics for further information