Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should not be used to purchase course materials.
COURSE SYLLABUS
AVIA 310
INSTRUMENT GROUND

COURSE DESCRIPTION
The student will learn the FAA regulations, radio communications, air traffic control procedures, and meteorology as it relates to the instrument flight environment. The student will learn the proper use of radio navigational instruments and will be given study tools to prepare for the FAA Instrument written exam.

RATIONALE
The purpose of this course is to introduce the student to instrument flying and help prepare the student to successfully complete the FAA Instrument Knowledge Test. Additionally, this course will foster an increased interest in aviation by exposing the student to career opportunities not available without an instrument rating. The instrument rating is a crucial course for any professional pilot career.

I. PREREQUISITE
For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II. REQUIRED RESOURCE PURCHASE
Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III. ADDITIONAL MATERIALS FOR LEARNING
A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES
Upon successful completion of this course, the student will be able to:
A. Communicate effectively within the air traffic control system.
B. Identify symbols on low en-route and instrument procedure charts.
C. Complete an instrument flight plan and flight log.
D. Analyze the various components of different instrument approaches.
E. Pass the FAA knowledge exam.
F. Apply biblical principles as they relate to the application and obedience of aviation regulations.

V. **COURSE REQUIREMENTS AND ASSIGNMENTS**

A. Textbook readings and presentations

B. Course Requirements Checklist
   
   After reading the Course Syllabus and [Student Expectations](#), the student will complete the related checklist found in Module/Week 1.

C. Discussion Board Forums (4)

   Discussion boards are collaborative learning experiences. Therefore, the student is required to create a thread in response to the provided prompt for each forum. Each thread must be at least 250 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates’ threads. Each reply must be at least 100 words. These discussion boards will be split over 2 modules/weeks, with threads being due the first module/week and replies being due the following module/week.

D. Research Paper

   The student will write a 3–4-page research-based paper in current APA format that focuses on the application of biblical and moral principles during instrument flight. The paper must include at least 2 references in addition to the course textbooks and the Bible.

E. Communication Project

   The student will complete a communication project in which he/she will analyze a scenario and write a research-based 2-page essay. The project must include at least 2 references cited in current APA format.

F. Quizzes (8)

   Each quiz will cover the Reading & Study material for the assigned module/week. Each quiz will be open-book/open-notes; contain 18 multiple-choice, true/false, and short answer questions as well as 2 essay questions; and have a 2-hour time limit.

VI. **COURSE GRADING AND POLICIES**

A. Points

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Requirements Checklist</td>
<td>10</td>
</tr>
<tr>
<td>Discussion Board Forums (4 at 25 pts ea)</td>
<td>100</td>
</tr>
<tr>
<td>Research Paper</td>
<td>150</td>
</tr>
<tr>
<td>Communication Project</td>
<td>150</td>
</tr>
<tr>
<td>Quizzes (8 at 75 pts ea)</td>
<td>600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1010</td>
</tr>
</tbody>
</table>

B. Scale
A = 900–1010   B = 800–899   C = 700–799   D = 600–699   F = 0–599

C. Late Assignment Policy

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week of the due date will receive a 10% deduction.
2. Assignments submitted more than one week late will receive a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the course will not be accepted.
4. Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g., death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

D. Disability Assistance

Students with a documented disability may contact Liberty University Online’s Office of Disability Academic Support (ODAS) at LUODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.
COURSE SCHEDULE
AVIA 310


<table>
<thead>
<tr>
<th>MODULE/ WEEK</th>
<th>READING &amp; STUDY</th>
<th>ASSIGNMENTS</th>
<th>POINTS</th>
</tr>
</thead>
</table>
| 1 | IFH: chs. 3:1–10, 4:1–17, 5:1–28  
1 presentation  
1 King Course Website: “Developing Instrument Skills,” Knowledge 1 – 4 | Course Requirements Checklist  
Class Introductions  
DB Forum 1 Thread  
Quiz 1 | 10  
0  
*  
75 |
AIM: chs. 1.1.1–1.2.3, 5.1.1–5.1.16  
1 presentation  
1 King Course Website: “Polishing Instrument Skills,” Knowledge 1 – 4 | DB Forum 1 Replies  
Quiz 2 | 25  
75 |
IPH: chs. 1:1–6, 2:1–10  
1 presentation  
1 King Course Website: “GPS, NDB, and VOR Navigation,” Knowledge 1 – 4 | DB Forum 2 Thread  
Quiz 3 | *  
75 |
| 4 | IFH: chs. 1:12, 10:5–7  
IPH: chs. 1:7–44, 2:11–47, 3:1–10  
1 presentation  
1 King Course Website: “Holding Patterns and DME Arcs,” Knowledge 1 - 3 | DB Forum 2 Replies  
Quiz 4 | 25  
75 |
| 5 | IFH: ch. 10:10–13  
IPH: ch. 3:11–26  
1 presentation  
1 King Course Website: “Precision and Non-precision Approaches,” Knowledge 1 – 4 | DB Forum 3 Thread  
Quiz 5 | *  
75 |
IPH: ch. 4:1–70  
1 presentation | DB Forum 3 Replies  
Quiz 6 | 25  
75 |
<table>
<thead>
<tr>
<th></th>
<th>1 King Course Website: “Automation, ATC, and Other Approaches,” Knowledge 1 – 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>IPH: ch. 4:71–88</td>
</tr>
<tr>
<td></td>
<td>AIM: ch. 5.4.1–5.5.1</td>
</tr>
<tr>
<td></td>
<td>1 presentation</td>
</tr>
<tr>
<td></td>
<td>1 King Course Website: “IFR Cross Country,” Knowledge 1 – 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB Forum 4 Thread Research Paper</td>
</tr>
<tr>
<td></td>
<td>Quiz 7</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>75</td>
</tr>
<tr>
<td>8</td>
<td>IFH: chs. 4:4–17, 10:22–33, 11:1–14</td>
</tr>
<tr>
<td></td>
<td>IPH: ch. 2:47–48</td>
</tr>
<tr>
<td></td>
<td>1 presentation</td>
</tr>
<tr>
<td></td>
<td>1 King Course Website: “Practical Test Preparation,” Knowledge 1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB Forum 4 Replies</td>
</tr>
<tr>
<td></td>
<td>Communication Project</td>
</tr>
<tr>
<td></td>
<td>Quiz 8</td>
</tr>
<tr>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>75</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1010</strong></td>
</tr>
</tbody>
</table>

DB = Discussion Board
* See Discussion Board Grading Rubric for thread/replies point breakdown
IFH = *Instrument Flying Handbook*
IPH = *Instrument Procedures Handbook*
AIM = FAR/AIM

**NOTE:** Each course module/week (except Module/Week 1) begins on Tuesday morning at 12:00 a.m. (ET) and ends on Monday night at 11:59 p.m. (ET). The final module/week ends at 11:59 p.m. (ET) on Friday.