

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 451

AVIATION MAINTENANCE OPERATIONS

COURSE DESCRIPTION

A study of aviation maintenance-specific topics which face those in maintenance leadership positions. These topics include, but are not limited to, the need for maintenance; development of maintenance programs; technical planning, control, and training; and differing types of maintenance operations.

RATIONALE

This course provides an overview of the types of issues encountered by one overseeing an aviation maintenance operation, whether in the airline industry, a small private shop, or a repair station. It provides the insight necessary to either start such a program or improve an existing program. To do so, an understanding of the maintenance-specific details and the management details must be gained. By teaching these topics from a Christian perspective, a biblical industry view is gained.

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
- D. Free online aviation maintenance industry magazines

IV. MEASURABLE LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

- A. Recognize the five contextual definitions of the word “maintenance”.
- B. List the five objectives of a maintenance program.
- C. Explain the structure and operation of a Maintenance Steering Group (MSG).
- D. Distinguish between process-oriented maintenance and task-oriented maintenance.
- E. Describe the major aviation industry certification types and requirements.
- F. Contrast the major types of aviation documentations and their applications.
- G. Analyze the purposes and significances of the major technical services of a maintenance operation including engineering, production planning and control, technical publications, technical training, and materials support.
- H. Discuss the oversight functions, responsibilities, and liabilities of typical aviation maintenance manager.
- I. Recognize human factors and safety issues associated with an aircraft maintenance operation.
- J. Build a simulated aviation maintenance structure and operation.
- K. Apply a biblical worldview to all aspects of aviation maintenance operations.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

- A. Textbook readings and lecture 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 300–400 words and demonstrate course-related knowledge and insight. The following week, the student will be required to reply to 2 other classmates’ threads. Each reply must be 150–200 words, demonstrate course-related knowledge, and bring additional insight to the thread. The student must cite the textbook and 1 additional source in current APA format in each thread and reply.

- D. Article Reviews (4)

The student will locate an article in an aviation maintenance trade magazine pertinent to the material being covered in the course. Each review must include an overview of the main points of the article as well as provide insight, integration, and analysis of major concepts covered in class. Each review must be 300–400 words and in current APA format.

E. Interview and Response

The student will interview a director of maintenance, or one in a similar position, of an aviation maintenance facility. Based on that interview, the student will write a 3–4-page report. The report must include a professional summary of the director; a summary of the interview questions and answers; and a response by the student which provides insight, integration, and analysis of major concepts covered in the course. The report must be in current APA format and cite 2 sources in addition to the textbook.

F. Final Project

The student will develop a management structure for an aviation maintenance organization. The project must be between 5–6 pages, be in current APA format, and include the following: type of organization with an overview of the type of maintenance operations, major management leadership with responsibility descriptions, and an overview of the policies and procedures.

G. Tests (4)

Each test will be open-book and open-notes and will cover the Reading & Study material as well as the presentations for the assigned modules/weeks. Each test will contain 23–24 multiple-choice, true/false, multiple answer, matching, and essay questions and have a 1-hour and 30-minute time limit.

VI. COURSE GRADING AND POLICIES

A. Points

Course Requirements Checklist	10
Discussion Board Forums	
Threads (4 at 30 pts ea)	120
Replies (4 at 20 pts ea)	80
Article Reviews (4 at 50 pts ea)	200
Interview and Response	200
Final Project	200
Tests (4 at 50 pts ea)	200
Total	1010

B. Scale

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

C. Disability Assistance

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

COURSE SCHEDULE

AVIA 451

Textbook: Kinnison & Siddiqui, *Aviation Maintenance Management* (2013).

MODULE/ WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	Kinnison & Siddiqui: chs. 1–3 1 presentation	Course Requirements Checklist Class Introductions DB Forum 1 Thread Test 1	10 0 30 50
2	Kinnison & Siddiqui: chs. 4–6 1 presentation	DB Forum 1 Replies Article Review 1	20 50
3	Kinnison & Siddiqui: chs. 7–9 1 presentation	DB Forum 2 Thread Test 2	30 50
4	Kinnison & Siddiqui: chs. 10–11 1 presentation	DB Forum 2 Replies Article Review 2	20 50
5	Kinnison & Siddiqui: chs. 12–14 1 presentation 1 website	DB Forum 3 Thread Test 3	30 50
6	Kinnison & Siddiqui: chs. 15–18 1 presentation	DB Forum 3 Replies Article Review 3 Interview and Response	20 50 200
7	Kinnison & Siddiqui: ch. 19, Appendix B 1 presentation	DB Forum 4 Thread Test 4	30 50
8	1 presentation	DB Forum 4 Replies Article Review 4 Final Project	20 50 200
TOTAL			1010

DB = Discussion Board

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**.