

**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***

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### **BIOM 620**

#### **ADVANCED IMMUNOLOGY**

#### **COURSE DESCRIPTION**

A detailed study of the cells and molecules that result from an immune response to disease. The course will include antigen presentation, cytokine networks, vaccines and vaccine development, immunodeficiency diseases, tumor immunity, tolerance, autoimmunity and contemporary topics in immunology.

#### **RATIONALE**

The student will learn about all aspects of the immune system, which will help him/her to understand how his/her own immune system functions.

#### **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. Explain the anatomy and function of the immune system, including both primary and secondary immune responses.
- B. Explain humoral and e cell immunity.
- C. Discuss cell signaling and hematopoiesis.
- D. Discuss the immune response to specific pathogens.
- E. Explain the nature of self and non-self-recognition and tolerance.
- F. Explain the problem of autoimmunity and immunodeficiency and their related diseases.

#### **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 (5)

Discussion boards are collaborative learning experiences. Therefore, the student is required to provide a thread in response to the provided prompt for each forum. Each thread must be at least 400 words and demonstrate course-related knowledge. Each thread must include at least 2 scholarly references. In addition to the thread, the student is required to reply to 2 other classmates' threads. Each reply must be at least 250 words and contain at least 1 scholarly reference.

D. Case Study

1. Proposal

The student will submit a 1/2-page proposal explaining his/her plans for the case study paper and presentation that focuses on his/her chosen disease topic.

2. Outline and Bibliography

The student will submit a 1-page outline and a 1-page bibliography in current APA format with at least 3 scholarly sources in addition to the course textbook.

3. Presentation

The student will give a 15-slide presentation on his/her chosen disease using case studies as the learning tool.

4. Paper

The student will submit a 5-page research-based paper in current APA format that focuses on the chosen case study.

E. Exams (2)

A mid-term and final exam will be given. The Midterm Exam will cover the Reading & Study material in Modules/Weeks 1–4, contain 100 multiple-choice, true/false, fill-in-the-blank, and matching questions, and have a 2-hour and 30-minute time limit. The Final Exam will cover the material in Modules/Weeks 1–8 and contain 100 multiple-choice, true/false, and matching questions, and have a 2-hour and 30-minute time limit. Both exams will be open-book/open-notes.

**VI. COURSE GRADING AND POLICIES**

A. Points

Course Requirements Checklist		10
Discussion Board Forums	(5 at 50 pts ea)	250
Case Study		
Proposal		25
Outline and Bibliography		75
Presentation		100
Paper		150
Midterm Exam	(Modules 1–4)	200
Final Exam	(Modules 1–8)	200
	<b>Total</b>	1010

B. Scale

A = 930–1010    A- = 900–929    B+ = 870–899    B = 830–869    B- = 800–829  
C+ = 770–799    C = 730–769    C- = 700–729    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](mailto:LUOODAS@liberty.edu) to make arrangements for academic accommodations. Further information can be found at [www.liberty.edu/disabilitysupport](http://www.liberty.edu/disabilitysupport).

## ***COURSE SCHEDULE***

### **BIOM 620**

Textbook: Chapel et al., *Essentials of Clinical Immunology* (2015).

<b>MODULE/ WEEK</b>	<b>READING &amp; STUDY</b>	<b>ASSIGNMENTS</b>	<b>POINTS</b>
<b>1</b>	Chapel et al.: ch. 1 1 presentation 1 website	Course Requirements Checklist Class Introductions DB Forum 1	10 0 50
<b>2</b>	1 presentation 1 website	DB Forum 2 Case Study Proposal	50 25
<b>3</b>	1 presentation 1 website	DB Forum 3 Case Study Outline and Bibliography	50 75
<b>4</b>	Chapel et al.: ch. 2 1 presentation 1 website	DB Forum 4 Midterm Exam	50 200
<b>5</b>	Chapel et al.: chs. 3–4 1 presentation 1 website	DB Forum 5	50
<b>6</b>	Chapel et al.: chs. 5–8 1 presentation	Case Study Presentation	100
<b>7</b>	Chapel et al.: chs. 9–14 1 presentation	Case Study Paper	150
<b>8</b>	Chapel et al.: chs. 15–18 1 presentation 1 website	Final Exam	200
<b>TOTAL</b>			<b>1010</b>

DB = Discussion Board

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