

Course objective	Geisel competency	Course Objective
1	1a	Describe the cells, products, and effector responses of the immune system
2	1a	Describe an immune response from initiation to resolution
3	1a	Describe T and B cell receptor diversity and antigen recognition
4	1a	Explain the role of tolerance, when and how it occurs, and consequences of autoimmunity
5	1a	Compare innate and adaptive immune responses
6	1a	Describe how pathogens are recognized, presented to the immune system, and how this influences vaccine design
7	1a	Describe and explain the key interactions during T cell and B cell interactions
8	1a	Describe and compare the four types of hypersensitivity
9	1a	Explain and compare immune processes during transplantation and tumor immunity
10	1a	Explain how specific drugs alter the function of the immune system
11	1a, 1b	Explain the consequences of specific immune deficiencies and approaches to treat them
12	1a	Describe how specific immunological tests function and are used in diagnosis
13	1a, 1b, 3f, 3g, 3h	Describe the immune basis, pathophysiology, epidemiology, clinical manifestations, and treatment of a disease for your med school colleagues.
14	3f, 3g, 3h, 4a, 4b	Function as a team member and coordinate an effective presentation
15	3f, 3g, 3h	Provide a timely and accurate presentation on the important characteristics of a disease, its diagnosis, and treatment.
16	3f, 3g, 3h	Lead a discussion of a topic and help fellow students understand key issues
17	1a, 1b	Interpret data from experiments and draw appropriate conclusions from the data.
18	1a	Recognize the structure of viruses.
19	1a	Describe the replication strategy of viruses.
20	1a	Explain pathogenesis of diseases caused by viruses.
21	1a	Identify how viruses spread from person to person.
22	1a	Recognize an epidemic or pandemic of virus infection.
23	1b	Describe tools and techniques in study of the structure, life cycle, pathogenesis, and diagnosis of viruses and their clinical signs.
24	1a	Distinguish replicative virus infection from virus latency.
25	1a	Recognize the molecular mechanisms of control of the process and activation of viral genomes during reactivation.
26	1a	Explain the role of the immune system in the control of virus infection.
27	1a, 1b	Recognize current strategies to prevent virus infection by vaccination
28	1a, 1b	Recognize current strategies to control virus infection or pathogenesis by immunological intervention.
29	1a, 1b	Recognize current strategies to control virus infection or pathogenesis by pharmacological intervention.
30	1a	Describe the growth behavior differences between cells transformed by oncogenic DNA and RNA viruses compared to normal cells.
31	1a	Relate tumor suppressor genes and the control of normal cell growth..
32	1a, 1b	Interpret how tumor suppressor gene products intersect growth and survival pathways and how tumor viruses interact with these molecules and their pathways.
33	1a	Differentiate the processes involved in the antitumor effects of certain viruses..
34	1a, 1b	Practice and demonstrate systematic problem-solving skills in basic and clinical virology.
35	1a, 1b	Integrate experimental strategies learned in the context of virus systems into the design of experiments that address other systems.