



# مشاوره تحصیلی هیوا

تخصصی ترین سایت مشاوره کشور

تماس با مشاوران ما، با شماره گیری

۹۰۹۹۰۷۵۳۰۵

از طریق تلفن ثابت

| نام درس                                                                                                               | منابع معرفی شده                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------|----------------------------------------|----------------------------------|--------------------------------|--------------------------------------------|------------------------------------------------------|-----------------------------------|--------------------------------------|-----------------------------|--------------------------------------------|
| آناتومی                                                                                                               | <ul style="list-style-type: none"><li>• <b>Clinical Anatomy by Region.</b> R.S. Snell, 11<sup>th</sup> Edition, 2024</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| بافت شناسی                                                                                                            | <ul style="list-style-type: none"><li>• <b>Junqueira's basic histology.</b> Anthony L. Mescher. McGraw-Hill Education. 17<sup>th</sup> edition, 2024</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| جنین شناسی                                                                                                            | <ul style="list-style-type: none"><li>• <b>Langman's medical Embryology.</b> T.W. Sadler. Lippincott Williams &amp; Wilkins. 15<sup>th</sup> Edition, 2022</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| فیزیولوژی                                                                                                             | <ul style="list-style-type: none"><li>• <b>Text book of medical physiology.</b> A. Guyton &amp; E. Hall, W.B. Sanders. 15<sup>th</sup> Edition, 2025</li></ul> <p>به استثنای فصل های:</p> <p>۳، ۱۳، ۲۲، ۲۳، ۳۲، ۳۵، ۳۶، ۴۳، ۴۴، ۴۵، ۶۷، ۶۸، ۶۹، ۷۰، ۷۲، ۷۳، ۷۴، ۸۳، ۸۴، ۸۵</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| بیوشیمی                                                                                                               | <ul style="list-style-type: none"><li>• <b>Lippincott Illustrated Reviews: Biochemistry,</b> Emine E. Abali. 9<sup>th</sup> edition, 2025, LWW Wolters Kluwer</li></ul> <p>شامل بخش ها / فصول منتخب زیر:</p> <p>Unit I: Protein structure and function<br/>Unit II: Bioenergetics and Carbohydrate metabolism<br/>Unit III: Lipid Metabolism<br/>Unit IV: Nitrogen Metabolism<br/>Unit V: Integration of Metabolism<br/>Unit VI: Medical Nutrition<br/>Chapter 3: DNA Structure, Replication, and Repair</p>                                                                                                                                                                                                                                                         |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| پزشکی<br>پیشگیری و<br>اجتماعی ۱<br>(اصول خدمات<br>سلامت)<br>پزشکی<br>پیشگیری و<br>اجتماعی ۲<br>( اصول<br>اپیدمیولوژی) | <ul style="list-style-type: none"><li>• کتاب "اصول و کلیات خدمات سلامت". محمد خواجه دلویی و همکاران، انتشارات دانشگاه علوم پزشکی مشهد. سال ۱۳۹۹</li><li>• برای درس اصول اپیدمیولوژی - فصول انتخابی زیر از کتاب اصول اپیدمیولوژی گوردیس:<br/><b>Gordis Epidemiology.</b> David D. Celentano, Elyse O" Grady. 7<sup>th</sup> Edition. 2024<ul style="list-style-type: none"><li>➤ Section I (The epidemiologic approach to disease and intervention)<br/>Chapters: 1-6</li><li>➤ Section II (Using epidemiology to identify the cause of disease)<br/>Chapters 7,8,9,10,12,14</li></ul></li></ul>                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| میکروب<br>شناسی                                                                                                       | <ul style="list-style-type: none"><li>• <b>Medical microbiology.</b> Murray et al. Elsevier, 10<sup>th</sup> Edition, 2026</li></ul> <table><tr><th>مباحث انتخابی در جدول زیر:</th></tr><tr><td>Introduction to Medical Microbiology</td></tr><tr><td>Human Microbiome in Health and Disease</td></tr><tr><td>Infection Prevention and Control</td></tr><tr><td>Traditional Diagnostic Methods</td></tr><tr><td>Molecular and Proteomic Diagnostic Methods</td></tr><tr><td>Bacterial Classification, Structure, and Replication</td></tr><tr><td>Bacterial Metabolism and Genetics</td></tr><tr><td>Mechanisms of Bacterial Pathogenesis</td></tr><tr><td>Role of Bacteria in Disease</td></tr><tr><td>Laboratory Diagnosis of Bacterial Diseases</td></tr></table> | مباحث انتخابی در جدول زیر: | Introduction to Medical Microbiology | Human Microbiome in Health and Disease | Infection Prevention and Control | Traditional Diagnostic Methods | Molecular and Proteomic Diagnostic Methods | Bacterial Classification, Structure, and Replication | Bacterial Metabolism and Genetics | Mechanisms of Bacterial Pathogenesis | Role of Bacteria in Disease | Laboratory Diagnosis of Bacterial Diseases |
| مباحث انتخابی در جدول زیر:                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Introduction to Medical Microbiology                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Human Microbiome in Health and Disease                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Infection Prevention and Control                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Traditional Diagnostic Methods                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Molecular and Proteomic Diagnostic Methods                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Bacterial Classification, Structure, and Replication                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Bacterial Metabolism and Genetics                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Mechanisms of Bacterial Pathogenesis                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Role of Bacteria in Disease                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |
| Laboratory Diagnosis of Bacterial Diseases                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                      |                                        |                                  |                                |                                            |                                                      |                                   |                                      |                             |                                            |

| منابع معرفی شده                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                   | نام درس     |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------|----|--------------------------|----|----------------------------------------|----|-----------------------------------|----|----------------------|----|-----------------------|---------------------------------------------|
| <div>Antibacterial Agents</div> <div>Staphylococcus and Related Gram-Positive Cocci</div> <div>Streptococcus and Enterococcus</div> <div>Bacillus</div> <div>Listeria and Related Gram-Positive Bacteria</div> <div>Mycobacterium and Related Acid-Fast Bacteria</div> <div>Neisseria and Related Bacteria</div> <div>Haemophilus and Related Bacteria</div> <div>Enterobacteriales</div> <div>Vibrio and Related Bacteria</div> <div>Pseudomonas and Related Bacteria</div> <div>Campylobacter and Helicobacter</div> <div>Miscellaneous Gram-Negative Rods</div> <div>Clostridium and Clostridioides</div> <div>Non-Spore-Forming Anaerobic Bacteria</div> <div>Treponema, Borrelia, and Leptospira</div> <div>Mycoplasma</div> <div>Rickettsia, Ehrlichia, and Related Bacteria Chlamydia</div> |                                                   |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| <div>• کتاب "انگل شناسی پزشکی ۲۰۲۰ مارکل و ووک"، سال ۱۴۰۴، ترجمه اعضای بورد انگل شناسی. انتشارات دانشگاه تهران .</div> <div>• <b>Medical microbiology.</b> Murray et al. Elsevier, 10<sup>th</sup> Edition, 2026</div> <div>شامل بخش ها / فصول منتخب زیر:</div> <table><tr><th>Chapter</th><th>Subject</th></tr><tr><td>57</td><td>Fungal Classification, Structure, and Replication</td></tr><tr><td>59</td><td>Role of Fungi in Disease</td></tr><tr><td>60</td><td>Laboratory Diagnosis of Fungal Disease</td></tr><tr><td>62</td><td>Superficial and Cutaneous Mycoses</td></tr><tr><td>63</td><td>Subcutaneous Mycoses</td></tr><tr><td>65</td><td>Opportunistic Mycoses</td></tr></table>                                                                                                    |                                                   | Chapter     | Subject                                                                                                                                                                                                                                                                                    | 57                       | Fungal Classification, Structure, and Replication | 59 | Role of Fungi in Disease | 60 | Laboratory Diagnosis of Fungal Disease | 62 | Superficial and Cutaneous Mycoses | 63 | Subcutaneous Mycoses | 65 | Opportunistic Mycoses | انگل شناسی<br>قارچ شناسی<br>و<br>حشره شناسی |
| Chapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Subject                                           |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Fungal Classification, Structure, and Replication |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 59                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Role of Fungi in Disease                          |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Laboratory Diagnosis of Fungal Disease            |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 62                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Superficial and Cutaneous Mycoses                 |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Subcutaneous Mycoses                              |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| 65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Opportunistic Mycoses                             |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| <div>• <b>Medical Microbiology.</b> Jawetz et al. Mc Graw Hill, 28<sup>th</sup> edition, 2019.</div> <div>شامل بخش های منتخب زیر:</div> <table><tr><th>عنوان موضوع</th></tr><tr><td>Classification of Viruses - Principles of Virus Structure - Chemical Composition of Viruses - Purification and Identification of Viruses - Reaction to Physical and Chemical Agents - Replication of Viruses: An Overview - Natural History (ecology) and Modes of Transmission of Viruses</td></tr><tr><td><b>Chapters: 30 – 44</b></td></tr></table>                                                                                                                                                                                                                                                         |                                                   | عنوان موضوع | Classification of Viruses - Principles of Virus Structure - Chemical Composition of Viruses - Purification and Identification of Viruses - Reaction to Physical and Chemical Agents - Replication of Viruses: An Overview - Natural History (ecology) and Modes of Transmission of Viruses | <b>Chapters: 30 – 44</b> | ویروس شناسی                                       |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| عنوان موضوع                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                   |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| Classification of Viruses - Principles of Virus Structure - Chemical Composition of Viruses - Purification and Identification of Viruses - Reaction to Physical and Chemical Agents - Replication of Viruses: An Overview - Natural History (ecology) and Modes of Transmission of Viruses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                   |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |
| <b>Chapters: 30 – 44</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                   |             |                                                                                                                                                                                                                                                                                            |                          |                                                   |    |                          |    |                                        |    |                                   |    |                      |    |                       |                                             |

دبیرخانه شورای آموزش پزشکی عمومی

منابع آزمون پذیرش دانشجوی دوره دکتری پزشکی عمومی از مقطع کارشناسی سال ۱۴۰۵

| نام درس                                                                                                                            | منابع معرفی شده                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|-------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------|---|---------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------|---|
| ایمنی شناسی پزشکی                                                                                                                  | <ul style="list-style-type: none"> <li>• <b>Basic Immunology: Functions and Disorders of the Immune System.</b> Abul K. Abbas and A. H. Lichman. Elsevier, 7<sup>th</sup> Edition, 2023</li> </ul> <p>شامل فصول منتخب زیر:</p> <table border="1"> <thead> <tr> <th>Subjects</th><th>Chapter</th></tr> </thead> <tbody> <tr> <td>Introduction to the Immune System: Nomenclature, General Properties, and Components</td><td>1</td></tr> <tr> <td>Unlabeled image-Innate Immunity: The Early Defense Against Infections</td><td>2</td></tr> <tr> <td>Antigen Presentation to T Lymphocytes and the Functions of Major Histocompatibility Complex</td><td>3</td></tr> <tr> <td>Antigen Recognition in the Adaptive Immune System: Structure of Lymphocyte Antigen Receptors and Development of Immune Repertoires</td><td>4</td></tr> <tr> <td>T Cell-Mediated Immunity: Activation of T Lymphocytes</td><td>5</td></tr> <tr> <td>Effector Mechanisms of T Cell-Mediated Immunity: Functions of T Cells in Host Defense</td><td>6</td></tr> <tr> <td>Humoral Immune Responses: Activation of B Lymphocytes and Production of Antibodies</td><td>7</td></tr> <tr> <td>Effector Mechanisms of Humoral Immunity: Elimination of Extracellular Microbes and Toxins</td><td>8</td></tr> <tr> <td>Immunologic Tolerance and Autoimmunity: Self-Nonself Discrimination in the Immune System and Its Failure</td><td>9</td></tr> </tbody> </table> | Subjects | Chapter | Introduction to the Immune System: Nomenclature, General Properties, and Components | 1 | Unlabeled image-Innate Immunity: The Early Defense Against Infections | 2 | Antigen Presentation to T Lymphocytes and the Functions of Major Histocompatibility Complex | 3 | Antigen Recognition in the Adaptive Immune System: Structure of Lymphocyte Antigen Receptors and Development of Immune Repertoires | 4 | T Cell-Mediated Immunity: Activation of T Lymphocytes | 5 | Effector Mechanisms of T Cell-Mediated Immunity: Functions of T Cells in Host Defense | 6 | Humoral Immune Responses: Activation of B Lymphocytes and Production of Antibodies | 7 | Effector Mechanisms of Humoral Immunity: Elimination of Extracellular Microbes and Toxins | 8 | Immunologic Tolerance and Autoimmunity: Self-Nonself Discrimination in the Immune System and Its Failure | 9 |
| Subjects                                                                                                                           | Chapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Introduction to the Immune System: Nomenclature, General Properties, and Components                                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Unlabeled image-Innate Immunity: The Early Defense Against Infections                                                              | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Antigen Presentation to T Lymphocytes and the Functions of Major Histocompatibility Complex                                        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Antigen Recognition in the Adaptive Immune System: Structure of Lymphocyte Antigen Receptors and Development of Immune Repertoires | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| T Cell-Mediated Immunity: Activation of T Lymphocytes                                                                              | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Effector Mechanisms of T Cell-Mediated Immunity: Functions of T Cells in Host Defense                                              | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Humoral Immune Responses: Activation of B Lymphocytes and Production of Antibodies                                                 | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Effector Mechanisms of Humoral Immunity: Elimination of Extracellular Microbes and Toxins                                          | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| Immunologic Tolerance and Autoimmunity: Self-Nonself Discrimination in the Immune System and Its Failure                           | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| مبانی روانشناسی                                                                                                                    | <p>روانشناسی مقدماتی</p> <ul style="list-style-type: none"> <li>• روانشناسی عمومی. دکتر حمزه گنجی - ویرایش هشتم. ۱۴۰۳.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |
| مهارت های استدلال و تفکر نقاد                                                                                                      | <p>در حیطه علوم انسانی و علوم اجتماعی</p> <ul style="list-style-type: none"> <li>• ذهن فریبکار شما، راهنمای علمی برای مهارت های تفکر نقاد، دکتر اکبر سلطانی و مریم آقازاده، ۱۳۹۹</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |         |                                                                                     |   |                                                                       |   |                                                                                             |   |                                                                                                                                    |   |                                                       |   |                                                                                       |   |                                                                                    |   |                                                                                           |   |                                                                                                          |   |