

## GMS 6140 - Principles of Immunology (3 credits)

GMS 6031 - Molecular Immunology (1 credit)  
GMS 6032 - Mechanisms of Host Defense (1 credit)  
GMS 6033 - Immunity in Health & Disease (1 credit)

FALL 2009

Mon/Wed/Fri, 10:40-11:30 a.m., room R2-265

Course Director: Wayne T. McCormack, Ph.D. phone 273-8603  
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Assigned reading chapters are from the textbook "Janeway's Immunobiology", Eds. Murphy, Travers, and Walport (7<sup>th</sup> edition, 2008). Please read assigned chapters before class.

### PART 1 (GMS 6031 – Molecular Immunology)

| DATE        | TOPIC  | FACULTY                | READING      |
|-------------|--|------------------------|--------------|
| Mon, Aug 24 | Basic Principles of Immunity                         | McCormack              | Chapter 1    |
| Wed, Aug 26 | Overview of Immunity                                 | McCormack              |              |
| Fri, Aug 28 | Antigens & Antibody Production                       | McCormack              |              |
| Mon, Aug 31 | Cellular Interactions in the Immune System           | McCormack              |              |
| Wed, Sep 2  | <b>TBL: Basic Concepts in Immunology</b>             | McCormack              |              |
| Fri, Sep 4  | Complement   | Wasserfall             | Chapters 2-3 |
| Mon, Sep 7  | <i>No class - Labor Day Holiday</i>                  |                        |              |
| Wed, Sep 9  | Innate Immunity                                      | Wasserfall             |              |
| Fri, Sep 11 | Antibody Structure & Antigen Recognition             | McCormack              |              |
| Mon, Sep 14 | Ag Recognition by T Cells: TCR & MHC Structure       | McCormack              |              |
| Wed, Sep 16 | <b>TBL: Innate Immunity &amp; Recognition of Ag</b>  | McCormack & Wasserfall |              |
| Fri, Sep 18 | Ig/TCR Genes & Generation of Diversity               | McCormack              | Chapters 4-5 |
| Mon, Sep 21 | Introduction to Immunogenetics & MHC                 | McCormack              |              |
| Wed, Sep 23 | TCR & MHC Genes                                      | Ostrov                 |              |
| Fri, Sep 25 | Antigen Processing & Presentation                    | Ostrov                 |              |
| Mon, Sep 28 | <b>TBL: Receptor Diversity &amp; Ag Presentation</b> | McCormack & Ostrov     |              |
| Thu, Oct 1  | Exam (7:00 p.m.) room TBA                            |                        |              |

### PART 2 (GMS 6032 – Mechanisms of Host Defense)

| DATE        | TOPIC   | FACULTY         | READING       |
|-------------|---|-----------------|---------------|
| Wed, Sep 30 | Immune System Receptor Signaling                  | Wallet          | Chapters 6-7  |
| Fri, Oct 2  | B Cell Tolerance                                  | Wallet          |               |
| Mon, Oct 5  | Central T Cell Tolerance                          | Mathews         |               |
| Wed, Oct 7  | Peripheral T Cell Tolerance                       | Mathews         |               |
| Fri, Oct 9  | <b>TBL: Development of Lymphocyte Repertoires</b> | Wallet          |               |
| Mon, Oct 12 | Production of Effector T Cells                    | Sobel           | Chapter 8     |
| Wed, Oct 14 | CTL Effector Mechanisms & T Cell Memory           | Sobel           |               |
| Fri, Oct 16 | <i>No class - UF Homecoming</i>                   |                 |               |
| Mon, Oct 19 | Macrophage & Dendritic Cell Function              | Xia             |               |
| Wed, Oct 21 | APC Regulation of the Immune Response             | Xia             |               |
| Fri, Oct 23 | <b>TBL: T Cell-Mediated Immunity</b>              | Sobel & Xia     |               |
| Mon, Oct 26 | Humoral Immune Response                           | Cha             | Chapters 9-11 |
| Wed, Oct 28 | Humoral Immune Response & B Cell Memory           | Cha             |               |
| Fri, Oct 30 | Mucosal Immunity                                  | Cha             |               |
| Mon, Nov 2  | <b>TBL: The Humoral Immune Response</b>           | Cha & McCormack |               |
| Thu, Nov 5  | Exam (7:00 p.m.) room TBA                         |                 |               |

**PART 3 (GMS 6033 – Immunity in Health & Disease)**

| <b>DATE</b> | <b>TOPIC</b>   | <b>FACULTY</b>         | <b>READING</b> |
|-------------|--|------------------------|----------------|
| Wed, Nov 4  | Infectious Agents & Innate Immunity                      | Wallet                 | Chapters 10-12 |
| Fri, Nov 6  | Acquired Immune Deficiency Syndrome                      | Goodenow               |                |
| Mon, Nov 9  | Adaptive Immunity to Infection                           | Wallet                 |                |
| Wed, Nov 11 | <i>No class - Veterans Day Holiday</i>                   |                        |                |
| Fri, Nov 13 | Inherited Immunodeficiency Diseases                      | Winter                 |                |
| Mon, Nov 16 | <b>TBL: Imm. to Infection &amp; Host Defense Failure</b> | Wallet & Winter        |                |
| Wed, Nov 18 | Allergy & Hypersensitivity                               | Peck                   | Chapters 13-14 |
| Fri, Nov 20 | Transplant Rejection: Responses to Alloantigens          | Ramiya                 |                |
| Mon, Nov 23 | Pathogenesis of Autoimmune Diseases                      | Peck                   |                |
| Wed, Nov 25 | Case Studies in Autoimmunity                             | Peck                   |                |
| Fri, Nov 27 | <i>No class - Thanksgiving Holiday</i>                   |                        |                |
| Mon, Nov 30 | <b>TBL: Clinical Immunology</b>                          | Peck & Ramiya          |                |
| Wed, Dec 2  | Modulation of Immune Responses                           | Clare-Salzler          | Chapter 15     |
| Fri, Dec 4  | Vaccines   | Reeves                 |                |
| Mon, Dec 7  | Tumor Immunology   | Winter                 |                |
| Wed, Dec 9  | <b>TBL: Manipulation of the Immune Response</b>          | Clare-Salzler & Reeves |                |
| Mon, Dec 14 | Exam (9:00 a.m.) room TBA                                |                        |                |

The lecture schedule above is subject to change, based on faculty availability.

|                |                                      |            |
|----------------|--------------------------------------|------------|
| <b>Grading</b> | Team-Based Learning                  | 25%        |
|                | Individual Readiness Assurance Tests |            |
|                | Group Readiness Assurance Tests      |            |
|                | Group Activity Exercises             |            |
|                | <u>Three Exams (25% each)</u>        | <u>75%</u> |
| Total          | 100%                                 |            |

**Team-Based Learning (TBL) format**

|                         |                     |  |
|-------------------------|---------------------|--|
| Individual RAT          | 5-10 minutes        | 5 MCQ, answer on Scantron              |
| Group RAT               | 5-10 minutes        | Answer on team IF-AT scratch-off cards |
| Group Activity          | 25 minutes          | 1-2 experimental problems              |
| <u>Group Discussion</u> | <u>5-10 minutes</u> |  |
| Total                   | 50 minutes          |  |