IMPORTANT: This syllabus form should be submitted to OAA (gsbs_academic_affairs@uth.tmc.edu) a week before the start of each semester.

NOTE to STUDENTS: If you need any accommodations related to attending/enrolling in this course, please contact one of the Graduate School's 504 Coordinators, Cheryl Spitzenberger or Natalie Sirisaengtaksin. We ask that you notify GSBS in advance (preferably at least 3 days before the start of the semester) so we can make appropriate arrangements.

Term and Year: **Spring 2024** Course Number and Course Title: **GS06 1013: Fundamental Immunology** **Credit Hours: 3** Meeting Location: **GSBS Large Classroom** Building/Room#: **BSRBS3.8371** WebEx/Zoom Link: **N/A**	**Program Required Course: Yes** Approval Code: **No** **Audit Permitted: Yes** Classes Begin: **January 12, 2024** Classes End: **April 26, 2024** Final Exam Week: **May 01, 2024**

Class Meeting Schedule

Day	Time
Wednesdays and Fridays	9:30AM - 10:45AM

Course Director Name and Degree: **Suhendan Ekmekcioglu, PhD** Title: **Professor** Department: **Melanoma Medical Oncology** Institution: **MDACC** Email Address: **sekmekcioglu@mdanderson.org** Contact Number: **713-563 0605** **Course Co-Director/s:** (if any) Name and Degree: **N/A** Title: Department: Institution: Email Address:	**Instructor/s** **See attached schedule info**

Contact Number: **NOTE:** Office hours are available by request. Please email me to arrange a time to meet. **Teaching Assistant**: (if any) **TBD** Name and Email Address	

Course Description:

The objectives of the course are to cover a broad overview of the principles of immunology by the pioneers in the field. Extensive introductory classes are offered by experts in their respected areas. The content of lectures provides students with basic understanding of different functions of the immune systems, two major types of immune responses, the immune cell types mediating immune response, the immune responses to foreign entities and related basic concepts of immunology to clinical settings.

Textbook/Supplemental Reading Materials

- Janeway's Immunobiology 10th edition by K. Murphy
- Any introductory textbook to immunology

<u>Course Objective/s</u>:
Upon successful completion of this course, students will be able to relate basic principles of immunology to their biological knowledge and training background.

***Specific Learning Objectives*:**
1. Provide a broad overview of immunology encompassing each of the major areas of Immunology.

2. Prepare students working in the immunology field for more advanced classes.

3. Prepare students working outside of immunology field to be familiar with basic concepts that might be useful in their future research.

4. Give students the tools to comprehend published papers utilizing immunological principles or papers directly addressing major issues in the field.

5. Give students the latest information on the current state of the field.

Grading System: **Letter Grade (A-F)**	
Student Assessment and Grading Criteria : *(May include the following:)*	
Percentage	**Description**
Homework (10 %)	Students will be assigned homeworks 3 times/semester
Midterm Exams (80 %)	3 exams will have equal impact in the final grade including the final exam and each exam will cover related lectures only.
Final Exam (80 %)	3 exams will have equal impact in the final grade including the final exam and each exam will cover related lectures only.
Participation and/or Attendance (10 %)	Will have attendance taken in each lecture

CLASS SCHEDULE

Date	-	**Topic**	**2024 Lecturers Suggestions**
1/10/2024	Wed	Introduction/Overview	Ekmekcioglu
1/12/2024	Fri	Major Techniques to Study Immunology	Ekmekcioglu
1/17/2024	Wed	Hematopoiesis	Wenzel
1/19/2024	Fri	Complement & Fc Receptors	Afshar-Kharghan
1/24/2024	Wed	Myeloid cell subsets	Gubin
1/26/2024	Fri	Innate Sensors/Pattern Recognition	Haymaker
1/31/2024	Wed	Cytokine Signaling	Haymaker
2/2/2024	Fri	Major Histocompatibility Complex	Lizee
2/7/2024	Wed	Antigen presentation	Lizee
2/9/2024	Fri	**Exam 1**	
2/14/2024	Wed	B cell development/Immunoglobulin	Shalapour
2/16/2024	Fri	B cell activation, memory, and BCR rearrangements	Shalapour
2/21/2024	Wed	T cell receptors	Reuben
2/23/2024	Fri	T cell development	Reuben
2/28/2024	Wed	T cell activation and signaling	Reuben
3/1/2024	Fri	Helper T cell subsets and differentiation	Nurieva
3/6/2024	Wed	Tregs	DiPilato
3/8/2024	Fri	NK cells/ILCs	Daher
3/13/2024	Wed	iNKT	Im
3/15/2024	Fri	**Exam 2**	
3/20/2024	Wed	Spring Break no class	

3/22/2024	Fri	Spring Break no class	
3/27/2024	Wed	Vaccine	Sonnemann
3/29/2024	Fri	Cancer Immunotherapy-Checkpoint blockade	Curran
4/3/2024	Wed	Cancer Immunotherapy-ACT, cytokines, vaccines	Curran
4/5/2024	Fri	Autoimmunity	Assassi
4/10/2024	Wed	Tolerance &Transplantation	Al-Atrash
4/12/2024	Fri	Mucosal immunity	Sastry
4/17/2024	Wed	HIV/AIDS/Immunodeficiency	Sastry
4/19/2024	Fri	Allergy	Adachi
4/24/2024	Wed	Microbiome	McQuade
4/26/2024	Fri	Summary/Review What We Learned	Ekmekcioglu / TAs
5/1/2024	Wed	**Exam 3**	