

**TO REGISTER FOR COURSES:** Log into **MyFAU**; Click **FAU Self-Service** (left side of screen); Click **Student Services**. Be sure to **check for holds** prior to registering. For instructions, see <http://www.fau.edu/uas/registration.php>

**MAT 4930-02H / CRN 15868 / Honors Introduction to Computational Science**

Dr. Yaouen Fily

M/W 2-3:50pm

Prereqs: Flexible; handled through instructor permission.

This is a python-based introduction to computational methods in science with examples from physics, chemistry, biology, data science, etc. The course is set up as a series of independent mini-projects. The exact content of the projects is subject to change depending on student interests. Requirements are some kind of programming experience (for example COP2000, IDS3932 Beginners Programming for Biology, ART3657C/ART4934C Programming for Visual Arts; self-taught can work too) and some calculus (ideally MAC2311). Contact Yaouen Fily at [yfily@fau.edu](mailto:yfily@fau.edu) to obtain permission and/or discuss whether the class is a good fit for you.

**Honors Data Visualization / IDS 3930-03H, CRN 16103**

Dr. Bharat Verma

TR 9:30-10:50am

3 credits

Expected prerequisites: STA 2023 Introductory Statistics; COP 2000 Foundations of Programming. Any experience with databases and data manipulation is highly desired.

Data Visualization is a fast-growing fascinating tool in data analytics. This course introduces you to the principles of graphic design and goes in depth into the study of data visualization through hands-on projects. The rigor involved in the course covers the concepts necessary for the Tableau Desktop Certified Associate exam as well. It is designed for data analytics specialization student as it is increasingly becoming an indispensable skill to communicate insights to a wider and diverse audience. Data exploration and presentation are key components within that skillset and the focus of this course. Although the course includes mastery of Tableau, it is in essence a critical thinking course aimed at users focused on visualization. It is an ever-accelerating field, so we will study a lot of material through live webinars and seminars available from multiple sources instead of a text book.

At the end of the course, you will be able to:

[O1] Provide an overview and brief history of the field of data visualization.

[O2] Apply the key graphic design principles for visualizing data.

[O3] Critically think about data visualizations to draw insights.

[O4] Create data visualizations using Tableau.

[O5] Publish and Share functional visualizations for different audiences

### **Honors Immunology, BSC 4930-22H, CRN 16733**

MW 2:00-3:20pm

Instructor: Dr. Lillian Onwuha-Ekpete

Prereqs: Genetics (PCB 3063)

Course description: This is an honors introductory course focused on the scientific study of the immune system as it pertains to humans. Topics will include the characterization of features relating to the organization of the immune system and the various roles carried out by specific cells. These features will be discussed in detail and how they contribute to the mechanisms leading to human immunity and disease.

Course Rationale: The purpose of this course is to provide information about the fundamental concepts of immunity. Immunology is a diverse scientific field of study that encompasses several different types of cells contributing to the well-being of the human body. The information provided in this course will contribute to the student's understanding of the human body's defense system to prevent disease and the molecular mechanisms associated to the recognition process of self-versus non-self-cells.

#### **Course Objectives and Student Outcomes:**

- To develop an understanding for the general principles of immunology.
- To understand the historical advances made by the pioneers in the field of immunology.
- To understand and identify the basic cellular features of the immune system.
- Knowledge of the signaling cascades that occur within the cell following receptor-ligand binding
- Knowledge of the classification system of the various immune cells.
- Knowledge of human immunological defense mechanisms and how they defend against microbial infections.
- Knowledge of human immunological disorders.
- Knowledge of the human immunosurveillance system and how it relates to cancer.
- Application of course content to current published research articles.

## **Having trouble registering for any courses?**

Some courses have restrictions that can be overridden simply by contacting the instructor, which you can do by emailing them. You can find the email of the instructor by clicking on the CRN number of the course in the Banner online course schedule. If you have difficulty contacting the instructor, then notify David Flanigan at [flanigan@fau.edu](mailto:flanigan@fau.edu) and indicate your Z number and which course number and CRN you want to enroll in and he can try to contact the instructor