Course Title: Immune Health Basics
Course Code: BIO 102 W
Instructor: Tobi L. Schmidt, Ph.D.

Course Summary:
This course is designed to give students unfamiliar with the workings of the human immune system a comprehensive overview of the role it plays in fighting disease and maintaining health. You will be introduced to the basic functions of the immune system in human health. Specific functions will be illustrated using the examples of bacterial and viral infections, cancer, and autoimmunity. In addition, environmental and lifestyle influences on immune function will be reviewed.

*Please see course page for full description and additional details.

Grade Options and Requirements:
No Grade Requested (NGR) – Please participate.
Credit/No Credit – Participate in all discussions and completion of all five quizzes*.
Letter Grade - Participate in all discussions, completion of all five quizzes* along with a short final exam**.

* Missed quizzes may be taken for half credit.
** Late exams will not be accepted.

Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.

Tentative Zoom Schedule*:
Thursdays at 7pm Pacific time.
*Please note that the Zoom schedule is subject to change.

Tentative Weekly Outline:
Module 1 (Week 1) – Introduction to the Immune System
Purpose: To familiarize students with organization, basic function, and components of the immune system.

✓ Fundamental functions
✓ Structure and Organization
✓ Components and Communication

**Module 2 (Week 2) – Immune Function in Infection**
Purpose: To illustrate the functions of the immune system in protecting and eliminating the body of microbial infections; an example of non-self immunity.

✓ Infection causing microbes
✓ Cellular response to microbes
✓ Non-cellular response to microbes

**Module 3 (Week 3) – Immune Function in Cancer**
Purpose: To illustrate the functions of the immune system in recognizing health threats that arise within the body; an example of self-immunity.

✓ Basic biology of cancer
✓ Cellular response to cancer
✓ Non-cellular response to cancer

**Module 4 (Week 4) – Immune Function in Autoimmunity**
Purpose: To illustrate what happens when the immune system improperly turns against the body; autoimmunity.

✓ Dysregulation of the immune response
✓ Recognition of “self”
✓ Cellular and Non-cellular response “self”

**Module 5 (Week 5) – Lifestyle Factors that Influence Immune Function**
Purpose: To highlight the major environmental and lifestyle influencing factors on the function of the immune system.

✓ Nutrition and Exercise
✓ The microbiota
✓ Sleep and stress