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Fall 2019

PUBH 7132 – Scientific Basis of Public Health

Haresh Rochani Dr.

Georgia Southern University, Jiann-Ping Hsu College of Public Health, hrochani@georgiasouthern.edu

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Georgia Southern University
Jiann-Ping Hsu College of Public Health
PUBH 7132 – Scientific Basis of Public Health
Fall 2019

Instructor: Dr. Haresh Rochani

Office: Hendricks Hall 1006

Phone: 912.478.1011

Email: hrochani@georgiasouthern.edu (Skype id: harry2467)

Website: Folio

Graduate Assistant: Sarah Ayoku (sa03348@georgiasouthern.edu)

Graduate Assistant Office Hours: Tuesday 12 pm-2 pm

Time: Monday 10am – 12pm

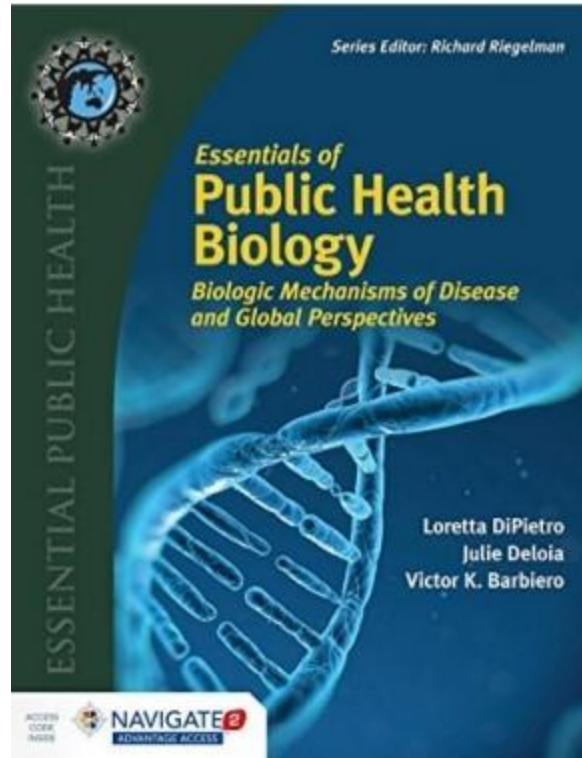
Tuesday 10am – 12pm or by appointment or by WebEx

Face to face meetings: 8/30/19, 10/4/19, 11/1/19 and 12/06/19 from 9:00 to 11:45 pm in Hendricks Hall Room 3001.

Prerequisites: None

Catalog Description: This course explores the scientific basis of 21st century disease processes including a survey of the origins, natural history, factors influencing individual and community risk. Clinical symptoms of diseases impacting humans, both acute and chronic, as well as epidemiologic trends will be also be discussed. Students will obtain an understanding of scientific mechanisms associated with the disease processes with particular focus on using this information in health-related professions and public health decision-making. As such, emphasis will be placed on the understanding and application of proposing community-based solutions designed to break the cycle of disease.

Required Textbook: Battle C.U. (2017). *Essentials of Public Health Biology: A guide for the study of Pathophysiology*. Jones & Bartlett Learning. ISBN 9781284077919



DrPH Learning Outcomes

1. Apply evidence-based practice and research methods to advance the field of public health.
2. Develop culturally-sensitive public health policies or programs using interdisciplinary approaches grounded in legal and ethical principles.
3. Integrate knowledge, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in addressing public health problems.
4. Communicate public health information to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies.
5. Propose strategies for health improvement and elimination of health inequities including stakeholders, researchers, practitioners, community leaders and other partners.

CEPH DrPH Learning Objectives

Profession & Science of Public Health

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge

Factors Related to Human Health

1. Explain effects of environmental factors on a population's health
2. Explain biological and genetic factors that affect a population's health
3. Explain behavioral and psychological factors that affect a population's health
4. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
5. Explain how globalization affects global burdens of disease
6. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)

DrPH foundation Competencies:

CEPH DrPH Competencies

Data & Analysis

1. Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels
2. Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue
3. Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health

Leadership, Management & Governance

1. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners
2. Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies
3. Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems
4. Create a strategic plan
5. Facilitate shared decision making through negotiation and consensus-building methods
6. Create organizational change strategies
7. Propose strategies to promote inclusion and equity within public health programs, policies and systems
8. Assess one's own strengths and weaknesses in leadership capacities including cultural proficiency
9. Propose human, fiscal and other resources to achieve a strategic goal
10. Cultivate new resources and revenue streams to achieve a strategic goal

Policy & Programs

1. Design a system-level intervention to address a public health issue
2. Integrate knowledge of cultural values and practices in the design of public health policies and programs
3. Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis
4. Propose interprofessional team approaches to improving public health

Education & Workforce Development

1. Assess an audience's knowledge and learning needs
2. Deliver training or educational experiences that promote learning in academic, organizational or community settings
3. Use best practice modalities in pedagogical practices

Performance-Based Objectives:

At the completion of this course, the student will be able to:

1. Specify the role of the immune system in population health.
2. Describe how behavior alters human biology.
3. Identify the ethical, social and legal issues implied by public health biology.
4. Explain the biological and molecular basis of public health.
5. Explain the role of biology in the ecological model of population-based health.
6. Explain how genetics and genomics affect disease processes and public health policy and practice.
7. Articulate how biological, chemical and physical agents affect human health.
8. Apply biological principles to development and implementation of disease prevention, control, or management programs.
9. Apply evidence-based biological and molecular concepts to inform public health laws, policies, and regulations.
10. Integrate general biological and molecular concepts into public health.

Instructional Methods:

This course is a blended course in which almost all the instructions will be delivered online. We will meet on the following days to discuss selected topics for this course : Fridays 8/30/19 , 10/4/19, 11/1/19 and 12/6/19 from 9:00 to 12:00 am. Class meetings will be a combination of lecture, class discussion and active participation. PowerPoint presentations (you can find and download from Folio) will be used in the lecture portion of this course. Prior to each lecture, the student is encouraged to complete the recommended reading and actively participate in the class discussion. In this way, it is hoped that the learner will be better prepared to successfully accomplish the learning objective of each lecture experience.

Course Outline: -

Weeks/Module	Readings	Assignments	Due Dates
Week 1/M1	Chapter 1	<ul style="list-style-type: none">• Introduce yourself	8/21/2019
Week 2/M2	Chapter 2 & 3	<ul style="list-style-type: none">• Quiz 1	8/28/2019 In class meeting on 8/30/2019
Week 3/M3	Chapter 4	<ul style="list-style-type: none">• M3 Discussion	9/4/2019
Week 4/M4	Chapter 5 & 6	<ul style="list-style-type: none">• Quiz 2	9/11/2019
Week 5/M5	Chapter 7	<ul style="list-style-type: none">• M5 Discussion	9/18/2019
Week 6/M6	Chapter 8 & 9	<ul style="list-style-type: none">• M6 Discussion	9/25/2019
Week 7/M7	Chapter 10 & 11	<ul style="list-style-type: none">• Quiz 3	10/2/2019 In class meeting on 10/4/2019
Week 8			
Week 9	Mid-Term Exam		10/16/2019
Week 10/M8	Chapter 12 & 13	<ul style="list-style-type: none">• M8 Discussion	10/23/2019
Week 11/M9	Chapter 14	<ul style="list-style-type: none">• Quiz 4	10/30/2019 In class meeting on 11/1/2019
Week 12/M10	Chapter 15	<ul style="list-style-type: none">• M10 Discussion	11/6/2019
Week 13/M11	Chapter 16	<ul style="list-style-type: none">• Quiz 5	11/13/2019
Week 14/M12	Chapter 17	<ul style="list-style-type: none">• M12 Discussion	11/20/2019

Week 15	Thanksgiving Break		
Week 16		<ul style="list-style-type: none"> • Presentation. • Upload your presentation 	12/6/2019 (Before class meeting In class meeting on 12/6/2019
Week 17	Final Exams		12/09/2019

Methods of Evaluation and Grading:

Item	Weight
Quizzes	15%
Discussions	15%
Mid-term Exam	25%
Group Presentations	20%
Final Exam	25%
Total	100%

Mid-term Exam is due on 10/16/2018

Final Examination is due on Monday, 12/09/2018

The following point scale will be utilized in grading:

[90%-100%] A

[80%-90%) B

[70%-80%) C

[60%-70%) D

[0%-60%) F

Your grades ***will*** be posted in folio. All exams and assignments will be graded and returned promptly (within 2 weeks) so that students may accurately calculate their grades at any point in time during the semester.

There are times when extraordinary circumstances occur (e.g., serious illness, death in the family, etc.). In such circumstances, and/or if you need additional time to satisfactorily complete any course requirement, please consult with the instructor within a reasonable amount of time. ***Nota Bene:*** Extensions are not guaranteed and will be granted solely at the discretion of the instructor.

Late Homework Assignment:

Some of the homework assignments require substantial work in advance of the actual due date. It is therefore important that you read the syllabus carefully, look at all homework assignments at the beginning of the course, and set your own deadlines for when you will accomplish the work. Pay special attention to the right hand column of the Course Schedule which lists due date. Late work may be submitted for documentation, however, no points will be awarded. All work is expected to be turned in on time.

General Expectations

1. For every one-credit hour, you should expect to work roughly two hours outside the classroom each week. For example, for a three credit hour course, during a regular fifteen-week semester, you should expect approximately ninety hours of work outside of class.
2. Students are expected to keep up with the class, to read the required material, and to submit assignments and activities by due dates and times.
3. Students are expected to independently complete all activities, exercises, assignments, and assessments including exams.
4. Students are expected to produce quality work. Typos and grammar errors should be kept to a minimum. The format and readability of submissions will be taken into consideration when assigning a grade.
5. Remember to check when assignments are due. It is recommended that you stay ahead of schedule on the assignments, so if an emergency happens, your assignment will be completed and ready to submit within the designated time frame. It is your responsibility to keep track of the due dates for each assignment.

Response Times

During a normal work week (i.e., Monday 9:00 AM through Friday 5:00 PM) students can expect responses as follows:

- Email: within 48 hours
- Discussion posts: within 72 hours
- Assignment grades: within 72 hours of submission date.

Exceptions: I may not check FOLIO or GSU email over the weekends. If you send me an email after 5:00 PM on Friday, please do not expect a response until the following Monday.

All assignments will be graded promptly so that students may accurately calculate their grades at any point in time during the semester. There are times when extraordinary circumstances occur (e.g., serious illness, death in the family, etc.). In such circumstances, and/or if you need additional time to satisfactorily complete any course requirement, please consult with the instructor within a reasonable amount of time. Extensions are not guaranteed and will be granted solely at the discretion of the instructor.

Course Expectations

Texting and Use of Cell Phones (and Other Technologies)

Please do not text in class or use your cell phone during class! Texting during class (or in a meeting) is disruptive and rude...at least to me. My preference is that you put cell phones away during class meetings so they are not a source of temptation. Offenders will be asked to leave.

Class Attendance and Participation Policy

Federal regulations require attendance be verified prior to distribution of financial aid allotments. Regular attendance is expected. Your attendance will be verified at the first regular class session.

It is the policy of the University to permit students, faculty, and staff to observe those holidays set aside by their chosen religious faith. The faculty should be sensitive to the observance of these holidays so that students who choose to observe these holidays are not seriously disadvantaged. It is the responsibility of those who wish to be absent to make arrangements in advance with their instructors.

Students participating in authorized activities as an official representative of the University (i.e., athletic events, delegate to regional or national meetings or conferences, participation in university-sponsored performances, and **JPHCOPH funded**) will not receive academic penalties and, in consultation with the instructor of record, will be given reasonable opportunities to complete assignments and exams or given compensatory assignment(s) if needed. The student must provide written confirmation from a faculty or staff advisor to the course instructor(s) at least 10 days prior to the date for which the student will be absent from the class. The student is

responsible for all material presented in class and for all announcements and assignments. When possible, students are expected to complete these assignments before their absences. In the event of a disagreement regarding this policy, an appeal may be made by either the student or the instructor of record to the corresponding college dean. (*University Graduate Catalog*)

Academic Misconduct

As a student registered at this University, it is expected that you will adhere to only the strictest standards of conduct. It is recommended that you review the latest edition of the *Student Conduct Code* book, as well as the latest *Undergraduate & Graduate Catalog* to familiarize yourself with the University's policies in this regard. Your continued enrollment in this course is an implied contract between you and the instructor on this issue; from this point forward, it is assumed that you will conduct yourself appropriately.

Plagiarism:

According to the Academic Dishonesty Policy of Georgia Southern University, Plagiarism includes (but is not limited to):

- A. Directly quoting the words of others without using quotation marks or indented format to identify them.
- B. Using published or unpublished sources of information without identifying them.
- C. Paraphrasing material or ideas without identifying the source.
- D. Unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic material.

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If you are accused of plagiarism by a JPHCOPH, the following policy, as per the Judicial Affairs website: (<http://students.georgiasouthern.edu/judicial/faculty.htm>) will be enforced:

PROCEDURES FOR ADJUDICATING ACADEMIC DISHONESTY CASES

First Offense - In Violation Plea

1. If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, the professor should contact the Office of Judicial Affairs to determine if this is a first violation of academic dishonesty. The incident will be reported via the following website: <http://students.georgiasouthern.edu/judicial/faculty.htm>
2. If it is a first violation, the professor should talk with the student about the violation. **If the student accepts responsibility in writing and the professor decides to adjudicate the case, the following procedures will be followed:**

- a. The student will be placed on disciplinary probation for a minimum of one semester by the Office of Judicial Affairs.
- b. The student will be subject to any academic sanctions imposed by the professor (from receiving a 0 on the assignment to receiving a failing grade in the class).
- c. A copy of all the material involved in the case (Academic Dishonesty Report Form and the Request for Instructor to Adjudicate Form) and a brief statement from the professor concerning the facts of the case and the course syllabus should be mailed to the Office of Judicial Affairs for inclusion in the student's discipline record.

First Offense - Not in Violation Plea (student does not admit the violation)

If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, the professor should contact the Office of Judicial Affairs to determine if this is the first or second violation of academic dishonesty. The student will be charged with academic dishonesty and the University Judicial Board or a University Hearing Officer would hear the case. If the student is found responsible, the following penalty will normally be imposed:

- a. The student will be placed on Disciplinary Probation for a minimum of one semester by the Office of Judicial Affairs.
- b. The student will be subject to any academic sanctions imposed by the professor.

Second Violation of Academic Dishonesty

If the professor and the Dean of Students agree that the evidence is sufficient to warrant a charge of academic dishonesty, and if it is determined this is the second violation, the student will be charged with academic dishonesty and the University Judicial Board or a University Hearing Officer would hear the case.

If the student is found responsible, the following penalty will normally be imposed:

- a. Suspension for a minimum of one semester or expulsion.
- b. The student will be subject to any academic sanctions imposed by the professor.

NOT RESPONSIBLE FINDING

When a student is found not responsible of academic dishonesty, the work in question (assignment, paper, test, etc.) would be forwarded to the Department Chair. It is the responsibility of the Chair to ensure that the work is evaluated by a faculty member other than the individual who brought the charge and, if necessary, submit a final grade to the Registrar. For the protection of the faculty member and the student, the work in question should not be referred back to the faculty member who charged the student with academic dishonesty.

In the case of a Department Chair bringing charges against a student, an administrator at the Dean's level will ensure that the student's work is evaluated in an appropriate manner.

CONFIDENTIALITY

In accordance with provisions of the Family Educational Rights and Privacy Act of 1974 and the Georgia Open Records Act, any information related to a violation of academic dishonesty or the outcome of a judicial hearing regarding academic dishonesty, is prohibited and must be treated as confidential by members of the faculty."

Accommodations for Individuals with Disabilities

In compliance with the Americans with Disabilities Act (ADA), Georgia Southern University will honor requests for reasonable accommodations made by individuals with disabilities. Students must self-disclose any disability for which an accommodation is being sought to the

Student Disability Resource Center (SDRC) before academic or other accommodations can be implemented. For additional information, please call the Director of EEO and Title IX at (912) 478-5136 / TDD (912) 478-0273 or the SDRC Director at (912) 478-1566 / TDD (912) 478-0666. The TDD phone numbers are intended for individuals with hearing impairments.

University Calendar for the Semester

The University Calendar is located with the semester schedule, and can be found at: <http://em.georgiasouthern.edu/registrar/resources/calendars/>

One Final Note

The contents of this syllabus are as complete and accurate as possible. The instructor reserves the right to make any changes necessary to the syllabus and course material to ensure better student learning. The instructor will announce any such changes in class. It is the responsibility of the student to know what changes have been made in order to successfully complete the requirements of the course.

This syllabus, my lecture notes, and all materials distributed and presented during this course are protected by copyright law. You are authorized to take notes in this class but that authorization extends to only making one set of notes for your personal use and no other use. You are not authorized to sell, license, commercially publish, distribute, transmit, display, or record notes from this class unless you have my written consent to do so.

STUDENT CONDUCT CODE

The Student Conduct Code is the official University publication governing student conduct and behavior. It is the responsibility of each student to become familiar with the rules and regulations governing student life. Student conduct procedures, appeal procedures, and disciplinary sanctions are found in the Student Conduct Code at <http://students.georgiasouthern.edu/conduct>. I

acknowledge that I have read and understand this statement referencing the Student Conduct Code.

ACADEMIC DISHONESTY

The University goal is to foster an intellectual atmosphere that produces educated, literate people. Because cheating and plagiarism are at odds with that goal, they shall not be tolerated in any form. Students are expected to adhere to the rules and regulations as set forth in the Student Conduct Code. Therefore, all work submitted by a student must represent that student's own ideas and effort; when the work does not, the student has engaged in academic dishonesty. Plagiarism occurs when a person passes in another person's work as his or her own, borrows directly from another person's work without proper documentation, and resubmits his or her own work that has been previously submitted without explicit approval from the instructor. For example, academic dishonesty occurs whenever a student participates in any of the following: Cheating submitting material that is not yours as part of your course performance; using information or devices that are not allowed by the faculty; obtaining and/or using unauthorized materials; fabricating information, research, and/or results; violating procedures prescribed to protect the integrity of an assignment, test, or other evaluation; collaborating with others on assignments without the faculty's consent; cooperating with and/or helping another student to cheat; demonstrating any other forms of dishonest behavior. Plagiarism directly quoting the words of others without using quotation marks or indented format to identify them; using sources of information (published or unpublished) without identifying them; paraphrasing materials or ideas without identifying the source; self-plagiarism - resubmitting work previously submitted without explicit approval from the instructor; unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic material. NOTICE: The list above is intended only to provide general guidelines for recognizing and avoiding common types of academic dishonesty. It is in no way an exhaustive or comprehensive list of all the types of academic dishonesty. For more information about academic honesty, see the Student Conduct Code at <http://students.georgiasouthern.edu/conduct>. I acknowledge that I have read and understand the Academic Dishonesty Policy.

I have read the syllabus and understand the contents and course requirements.

Student Name (print)

Student Signature

Date