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# **Environmental and Occupational Epidemiology**

North Carolina Agricultural and Technical State University

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# **COURSE SYLLABUS**

College Name: College of Science and Technology
Department Name: Department of Built Environment

Course Name: Environmental and Occupational Epidemiology

## **COURSE INFORMATION**

• Course Number/Section: EHS 704

Term: Fall 2021

Semester Credit Hours: 3 Credit Hours

Times and Days: OnlineClass Location: Online

## INSTRUCTOR CONTACT INFORMATION

Instructor: Add Name

Office Location: Price Hall 118
 Office Phone: Add Phone Number
 Email Address: Add Email @ncat.edu

## STUDENT HOURS

Interactions in this course will be via email and the discussion board. I will respond to emails within 3 days. Office hours will be via zoom on Monday – Wednesday, 12pm – 5pm.

## **Edit Hours**

| :        | $AM \; \square  /  PM \; \square  -$ | :       | $AM \; \square  /  PM \; \square$ |
|----------|--------------------------------------|---------|-----------------------------------|
| Monday □ | l Tuesdav □ Wednesd                  | av ⊟ Th | oursday □ Friday □                |

#### **COURSE PREREQUISITES**

Pre-requisites: EHS 101

## **COURSE DESCRIPTION**

The course covers the basic concepts and methods of Environmental and Occupational Epidemiology, and demonstrates how these can be applied to improve the health and safety of workers. The main focuses of the course include basic epidemiological concepts and methods including design of descriptive, analytical and experimental studies and application of epidemiology in environmental and occupational settings. Students will also learn about identifying sources of data, and how to evaluate published epidemiologic literature.

# STUDENT LEARNING OBJECTIVES/OUTCOMES (SLO)

Learning outcomes should be specific, measurable and focused on the content knowledge the students are expected to master and not what the faculty will teach.

If the course is a General Education Course, the SLO should be listed and labeled as "General Education."

- Establish connection between exposure and disease outcomes using various Epidemiological techniques
- Determine the strategies to assess environmental conditions in the workplace which can bring about pathological issues
- Assess and apply statistical techniques and measures within Epidemiology
- Explain the requirements of assessing the environmental and occupational determinants and distribution of disease

# **REQUIRED TEXTBOOKS AND MATERIALS**

## **REQUIRED TEXTS:**

Required Texts: : Epidemiology, 6h Edition, by Leon Gordis, W.B. Saunders Company, Philadelphia, 2019.

ISBN: 978-0-323-55229-5

# **REQUIRED MATERIALS:**

## **SUGGESTED COURSE MATERIALS**

SUGGESTED READINGS/TEXTS:

# **SUGGESTED MATERIALS:**

# **GRADING POLICY**

## **ASSIGNMENTS AND GRADING POLICY**

| 94% and above | Α  | 76% - 74% | С  |
|---------------|----|-----------|----|
| 93% - 90%     | A- | 73% - 70% | C- |
| 89% - 87%     | B+ | 69% - 67% | D+ |
| 86% - 84%     | В  | 66% - 64% | D  |
| 83% - 80%     | B- | 63% - 0%  | F  |
| 79% - 77%     | C+ |           |    |

#### **GRADING ALLOCATION**

Course grades are based on a weighted grading scale of 100%. The breakdown for the course is as follows: [Faculty, please adjust according to your course.]

| Category           | # of Activities | Percentage<br>Grade Weight |
|--------------------|-----------------|----------------------------|
| Assignments        | 3               | 15                         |
| Discussion Boards  | 9               | 15                         |
| Class Presentation | 1               | 10                         |
| Exams              | 2               | 60                         |
| Total              |                 | 100%                       |

# **COURSE POLICIES**

# USE OF BLACKBOARD AS THE LEARNING MANAGEMENT SYSTEM

Blackboard is the primary online instructional and course communications platform. Students can access the course syllabus, assignments, grades, and learner support resources. Students are encouraged to complete a Blackboard orientation and log in daily to course.

#### **MAKE-UP EXAMS**

See << Update Academic Year >> Undergraduate Bulletin:

https://www.ncat.edu/provost/academic-affairs/bulletins/index.php

#### **EXTRA CREDIT**

#### LATE WORK

#### SPECIAL ASSIGNMENTS

#### CLASS ATTENDANCE

Students are expected to attend class and participate on a regular basis in order to successfully achieve course learning outcomes and meet federal financial aid requirements. Class attendance in online courses is defined as active participation in academically-related course activities. Active participation may consist of course interactions with the content, classmates, and/or the instructor. Examples of academically-related course activities include, but are not limited to:

- Completing and submitting assignments, quizzes, exams, and other activities within Blackboard or through Blackboard (3rd-party products).
- Participating in course-related synchronous online chats, discussions, or meeting platforms such as Blackboard Collaborate in which participation is tracked.

#### **CLASSROOM CITIZENSHIP**

Courtesy, civility and respect must be the hallmark of your interactions.

#### COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT

North Carolina A&T State University is committed to following the requirements of the Americans with Disabilities Act Amendments Act (ADAAA) and Section 504 of the Rehabilitation Act. If you need an academic accommodation based on the impact of a disability, you must initiate the request with the Office of Accessibility Resources (OARS) and provide documentation in accordance with the Documentation Guidelines at N.C. A&T. Once documentation is received, it will be reviewed. Once approved, you must attend a comprehensive meeting to receive appropriate and reasonable accommodations. If you are a student registered with OARS, you must complete the Accommodation Request Form to have accommodations sent to faculty.

OARS is located in Murphy Hall, Suite 01. We can be reached at 336-334-7765, or by email at <a href="mailto:accessibilityresources@ncat.edu">accessibilityresources@ncat.edu</a>. Additional information and forms can be found on the web at <a href="https://www.ncat.edu/provost/academic-affairs/accessibility-resources/index.php">https://www.ncat.edu/provost/academic-affairs/accessibility-resources/index.php</a>.

**Please note:** Accommodations are not retroactive and begin once the Disability Verification Form is provided to faculty.

#### TITLE IX

North Carolina A&T State University is committed to providing a safe learning environment for all students—free of all forms of discrimination and harassment. Sexual misconduct and relationship violence in any form are inconsistent with the university's mission and core values, violate university policies, and may also violate federal and state law. Faculty members are considered "Responsible Employees" and are required to report incidents of sexual misconduct and relationship violence to the Title IX Coordinator. If you or someone you know has been impacted by sexual harassment, sexual assault, dating or domestic violence, or stalking, please visit the Title

IX website to access information about university support and resources. If you would like to speak with someone confidentially, please contact the Counseling Services 336-334-7727 or the Student Health Center 336-334-7880.

#### **TECHNICAL SUPPORT**

If you experience any problems with your A&T account, you may call Client Technology Services (formerly Aggie Tech Support and Help Desk) at 336-334-7195, or visit <a href="https://hub.ncat.edu/administration/its/dept/ats/index.php">https://hub.ncat.edu/administration/its/dept/ats/index.php</a>.

#### FIELD TRIP POLICIES / OFF-CAMPUS INSTRUCTION AND COURSE ACTIVITIES

If applicable:

Off-campus, out-of-state and foreign instruction and activities are subject to state law and university policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at <a href="https://www.ncat.edu/campus-life/student-affairs/index.php">https://www.ncat.edu/campus-life/student-affairs/index.php</a>.

### STUDENT HANDBOOK

https://www.ncat.edu/campus-life/student-affairs/departments/dean-of-students/student-handbook.php.

#### STUDENT TRAVEL PROCEDURES AND STUDENT TRAVEL ACTIVITY WAIVER

https://hub.ncat.edu/administration/student-affairs/staff-resources/studen\_activity\_travel\_waiver.pdf

OTHER POLICIES (e.g., Copyright Guidelines, Confidentiality, etc.)

#### STUDENT HANDBOOK

https://www.ncat.edu/campus-life/student-affairs/departments/dean-of-students/student-handbook.php

#### SEXUAL MISCONDUCT POLICY

https://www.ncat.edu/legal/title-ix/sexual-harassment-and-misconduct-policies/index.php

# FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

https://www.ncat.edu/registrar/ferpa.php

# STUDENT COMPLAINT PROCEDURES

https://www.ncat.edu/current-students/student-complaint-form.php

## STUDENT CONDUCT AND DISCIPLINE

North Carolina A&T State University has rules and regulations that govern student conduct and discipline meant to ensure the orderly and efficient conduct of the educational enterprise. It is the responsibility of each student to be knowledgeable about these rules and regulations.

Please consult the following about specific policies such as academic dishonesty, cell phones, change of grade, disability services, disruptive behavior, general class attendance, grade appeal, incomplete grades, make up work, student grievance procedures, withdrawal, etc.:

- Undergraduate Bulletin <a href="https://www.ncat.edu/provost/academic-affairs/bulletins/index.php">https://www.ncat.edu/provost/academic-affairs/bulletins/index.php</a>
- Graduate Catalog
   https://www.ncat.edu/tgc/graduate-catalog/index.php
- Student Handbook
   https://www.ncat.edu/campus-life/student-affairs/departments/dean-of-students/student-handbook.php

## **ACADEMIC DISHONESTY POLICY**

Academic dishonesty includes but is not limited to the following:

- 1. Cheating or knowingly assisting another student in committing an act of cheating or other academic dishonesty;
- Plagiarism (unauthorized use of another's words or ideas as one's own), which includes but is not limited to submitting exams, theses, reports, drawings, laboratory notes or other materials as one's own work when such work has been prepared by or copied from another person;
- 3. Unauthorized possession of exams or reserved library materials; destroying or hiding source, library or laboratory materials or experiments or any other similar actions;
- 4. Unauthorized changing of grades, or marking on an exam or in an instructor's grade book or such change of any grade record;
- 5. Aiding or abetting in the infraction of any of the provisions anticipated under the general standards of student conduct;
- 6. Hacking into a computer and gaining access to a test or answer key prior to the test being given. A&T reserves the right to search the emails and computers of any student suspected of such computer hacking if a police report of the suspected hacking was submitted prior to the search; and
- 7. Assisting another student in violating any of the above rules.

A student who has committed an act of academic dishonesty has failed to meet a basic requirement of satisfactory academic performance. Thus, academic dishonesty is not only a basis for disciplinary action but may also affect the evaluation of a student's level of performance. Any student who commits an act of academic dishonesty is subject to disciplinary action.

In instances where a student has clearly been identified as having committed an act of academic dishonesty, an instructor may take appropriate disciplinary action, including a loss of credit for an assignment, exam or project; or awarding a grade of "F" for the course, **subject to review and endorsement by the chairperson and dean**.

# **ASSIGNMENTS AND ACADEMIC CALENDAR**

Include topics, reading assignments, due dates, exam dates, withdrawal dates, pre-registration and registration dates, all holidays and convocations. \*

| MONTH     | DAY | SUBJECT   | READING IN  |
|-----------|-----|---|---|
|           |     |   | TEXT, ACTIVITY, HOMEWORK, EXAM  |
| August    | 23  | Unit 1: Course Orientation and Introduction to Epidemiology   | <ul> <li>Reading in Text:         <ul> <li>Chapter 1: Introduction</li> <li>Chapter 2: The Dynamics of Disease Transmission</li> </ul> </li> <li>Discussion Board #2</li> </ul>   |
| August    | 30  | Unit 2: Measures of Disease<br>Frequency  | Reading in Text:  |
| September | 6   | Unit 3: Measures of Association   | <ul> <li>Reading in Text:         <ul> <li>Chapter 12: Estimating Risk: Is there an Association?</li> <li>Chapter 13: More on Risk: Estimating the Potential for Prevention</li> </ul> </li> <li>Assignment #1</li> </ul> |
| September | 13  | Unit 4: Descriptive Studies: Key<br>Sources of Data for<br>Epidemiologic Purposes and<br>Design strategies for<br>Epidemiological studies | Discussion Board #4   |
| September | 20  | Unit 5: Study Design – Experimental Studies and Cohort Studies  | <ul> <li>Reading in Text:</li> <li>Chapter 7: Observational Studies</li> <li>Chapter 8: Cohort Studies</li> <li>Exam #1</li> </ul>  |
| September | 27  | Unit 6: Study Design - Cohort<br>Studies and Case Control<br>studies  | <ul> <li>Reading in Text:         <ul> <li>Chapter 8: Cohort Studies</li> <li>Chapter 9: Comparing Cohort and Case-Control Studies</li> </ul> </li> <li>Discussion Board #5</li> </ul>                                    |
| October   | 4   | Unit 7: Study Design Review   | Discussion Board #6   |
| October   | 11  | Unit 8: Natural History of<br>Disease and Population<br>Screening   | <ul> <li>Reading in Text: Chapter 18: Epidemiologic<br/>Approach to Evaluating Screening Programs</li> <li>Discussion Board #7</li> </ul>   |
| October   | 18  | Unit 9: Inferences from epidemiology data (bias, confounding and chance - Part I  | <ul> <li>Reading in Text: Chapter 15: More on Causal<br/>Inference: Bias, Confounding, and Interaction</li> <li>Assignment #2</li> </ul>  |
| October   | 25  | Unit 10: Outbreak Investigation   | <ul> <li>Reading in Text:         <ul> <li>Chapter 2: The Dynamics of Disease Transmission</li> <li>Chapter 6: The Natural History of Disease: Ways of Expressing Prognosis</li> </ul> </li> <li>Exam #2</li> </ul>       |
| November  | 1   | Unit 11: Inferences from epidemiology data (bias, confounding and chance)-Part II   | Discussion Board #8   |
| November  | 8   | Unit 12: Statistical Association and Cause-Effect Relationship: Causal Inference  | <ul> <li>Reading in Text: Chapter 15: More on Causal<br/>Inference: Bias, Confounding, and Interaction</li> <li>Discussion Board #9</li> </ul>  |

| November | 11 | Unit 13: Class Presentations:<br>Environmental and<br>Occupational Epidemiology | Class Presentation  |
|----------|----|---|---|
| November | 15 | Unit 14: Epidemiology and Public Policy   | <ul> <li>Reading in Text:Chapter 19: Epidemiology<br/>and Public Policy</li> <li>Assignment #3</li> </ul> |
| November | 22 | Unit 15: Environmental and Occupational Epidemiology                            | • Exam #3   |

<sup>\*</sup> These descriptions and timelines are subject to change at the discretion of the instructor.