Texas A&M University - Corpus Christi
College of Nursing and Health Sciences

NURS 6301-W01- Epidemiology and Statistics for Evidence-Based Practice

Syllabus -Spring 2020

FACULTY: Theresa Garcia, PhD, RN, Assistant Professor

OFFICE: Island Hall, 330

OFFICE HOURS: Varied Virtual Office Hours: Phone, WebEX or face2face meetings (by appointment Mon-Sat)

TELEPHONE: Office: (361) 825-3957

E-MAIL: (Bb mail preferred)

IT HELP DESK: (361) 825-2692; computer.helpline@tamucc.edu

CREDITS: 3 semester hours

MEETINGS (WebEX): 2-3 WebEX meetings/One U-Tube presentation.

COURSE DESCRIPTION:

Principles of epidemiology and biostatistics applied to the management of population health.

Prerequisites: None

General information: The purpose of this course is to prepare doctoral students to analyze epidemiological, bio statistical, occupational and environmental data in the development, implementation, and evaluation of clinical prevention and population health. This course is required for students enrolled in the Texas A&M University-Corpus Christi College of Nursing and Health Sciences Doctor of Nursing Practice program. This course is based on the science and application of epidemiology. There are 2-3 required WebEX meetings that are required in this course for presentations and discussion. The dates are identified in the Course Schedule.

Online delivery: This course is delivered exclusively through online technology and may be accessed at http://Bb9.tamucc.edu. Students will need to provide PowerPoint, word processing, and other software as needed to complete requirements of this course. Students need to download
collaborative tools such as the WebEx application. **Students must have webcam for their Unit 4 final Webex online presentation.**

**COURSE OBJECTIVES:**

Upon completion of the course, students will be able to:

1. Calculate and interpret health indicators for populations. (*AACN Essentials I, III, VII*).
2. Integrate biostatistics as a framework for the analyses of data and the application of principles to the biological sciences and population health. (*AACN Essentials I, III, VII*).
4. Explain implications for the development of data-based programs for disease/injury prevention and control as well as policy implications. (*AACN Essentials III, IV, VII*).
5. Develop and evaluate a diverse population intervention plan with a plan to improve specific population health outcomes. (*AACN Essentials II, IV, VII, VIII*).

**REQUIRED TEXTS AND RESOURCES:**


**ADDITIONAL RECOMMENDED RESOURCES:**

Center for Disease Prevention and Control, Publications and information products, retrieved from [http://www.cdc.gov/nchs/hus/previous.htm](http://www.cdc.gov/nchs/hus/previous.htm)

Community Tool Box retrieved from [http://ctb.ku.edu/en/developing-intervention](http://ctb.ku.edu/en/developing-intervention)


INSTRUCTIONAL STRATEGIES:

Asynchronous online unit discussions
Self-study exercises and case studies
Required unit reading/writing and exercises
Written comprehensive paper
WebEX presentation by students (webcam required)

LEARNING EXPERIENCES:

Students can meet course objectives through successful completion of all assignments, thoughtful study of the textbook and other resources provided by the instructor, and earnest participation in discussions with peers and instructor throughout the course. While the instructor will provide guidance and consultation, students are responsible for identification of individual learning needs, self-direction and motivation, seeking help when needed, and successful completion of the course requirements. Students should exhibit self-direction and demonstrate that learning has occurred by the successful completion of coursework which may include field experiences.

Students are responsible for documenting time in field experiences in DNP Typhon and DNP Portfolio. Students must contact the instructor if they seek field experiences in this course related to their DNP project. Some course experiences may be appropriate to count toward practice hours required for the DNP program. The course faculty may identify these experiences as appropriate and give direction to log practice hours as indicated. If students believe a course experience may be suitable for practice hours, it should be discussed with the course faculty and DNP faculty chair prior to logging practice hours. Students are responsible for documenting time in field experiences in Typhon prior to the end of the semester.

COURSE COMMUNICATION:

The Blackboard (Bb) Mail tool is required for communication within the course. When contacting the instructor or classmates in this course, always use the Bb Mail tool rather than another e-mail account. This tool is accessed in the Bb Mail section of the Course Menu. Messages sent within Bb are archived within the course, thus eliminating lost correspondence.
COURSE TIME EXPECTATIONS:

All assignments and discussions are due by 11:59 pm on the specified due date in the course schedule unless prior arrangements are made with the instructor. Please note and remember that a 3-credit hour course requires a weekly time commitment of a 3-hour presence associated with 9 hours of preparation time. That expectation remains the same in an on-line course. The time spent in the course is set by each student’s personal learning schedule. Students should review Bb mail and announcements at least every 48 hours.

COURSE REQUIREMENTS:

1. Students are expected to have access to a computer that can support Bb applications and all related course materials. A backup plan should be in place if normal computer access becomes unavailable, i.e. arrange use of a computer elsewhere.
2. Any problems with technology, computer, internet, Bb or other applications should be dealt with through the IT (information technology) helpline at (361) 825-2692 or computer.helpline@tamucc.edu
3. Any problems understanding the assignments or due dates should be brought to the attention of the instructor, preferably within the first 2 weeks of class.
4. All e-mail communication with the instructor should occur through Bb if possible.
5. All assignments are due by 11:59 pm on the scheduled date unless other arrangements have been made with the instructor before the due date. Late work will be penalized with a 10% grade deduction/day for up to 2 days. However, exceptions will be considered for emergencies where pre-planning was not possible.
6. Respectful and timely participation in discussion forums is required. Since it is assumed each student will be prepared for discussions, all contributions will be considered knowledgeable contributions. Disrespect in any form will NOT be tolerated.
7. All information disclosed through course chats or discussions is confidential and should not be shared with others outside the context of this course.
8. Students should notify the instructor if they withdraw from the course and should not attempt to access course materials once they have withdrawn.
9. Students are expected to complete a course evaluation at the end of the course.
10. Students can expect the instructor to respond to Bb e-mail messages within 48 hours.

GUIDELINES FOR FORM AND STYLE OF WRITTEN ASSIGNMENTS:

Students are expected to follow instructions associated with the assignments for this course. If you are confused about an assignment, you should contact the instructor in a timely manner. Unless otherwise instructed, each student must adhere to the APA Publication Manual, 6th
edition guidelines for formatting and organizing written assignments, including written discussions. The campus Center for Academic Student Achievement (CASA) needs to be used in this course for all major papers. This center provides writing support both in person and in an online format. The contact at the Center is Noelle Ballmer at 361-825-2254 and the web link is http://casa.tamucc.edu/

**Academic Integrity:**
All students are expected to conduct themselves as mature adults engaged in university-level academic activities. By enrolling in this course, each student agrees to adhere to Regulations and Procedures published in the TAMU-CC Graduate Catalog. Anything that is viewed as cheating in any form will receive a grade of zero and/or will be given the most severe penalty possible, most likely an "F" for the course.

**Plagiarism** is a specific form of cheating. Plagiarism means to steal and pass off the work of another as one’s own work. It usually results from bad paraphrasing or improper referencing. The substitution of a few changes from those of the original author and forgetting to use quotation marks, and reference citation are technically considered plagiarism. The only safe way to paraphrase is to read the original over several times and then write your understanding of what you read without looking at the original. Keep the source book closed!

Please see the following sites for additional information:

- University Student Handbook and Code of Conduct: [http://www.tamucc.edu/~students](http://www.tamucc.edu/~students)
- University catalog related to academic integrity and honesty: [http://catalog.tamucc.edu/](http://catalog.tamucc.edu/)

**COURSE ASSIGNMENTS AND GRADING:**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage of Grade</th>
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<tbody>
<tr>
<td>Unit Discussion Forums - (1 forum/unit x 2 = 10% each)</td>
<td>20%</td>
</tr>
<tr>
<td>Epidemiology On-Line Self-Study (5 mini-courses on Health Data)</td>
<td>15%</td>
</tr>
<tr>
<td>Bio-statistics: Application</td>
<td>25%</td>
</tr>
<tr>
<td>Population Intervention Plan (PIP) Comprehensive Paper &amp; U-Tube Presentation (83% or better required to pass course)</td>
<td>40%</td>
</tr>
<tr>
<td>Doctor of Nursing Practice Experience Portfolio/Typhon</td>
<td>3 hours synthesis course credit earned. However, field hours can be earned if pre-approved by course instructor and DNP chair</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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5GRADING SCALE FOR COLLEGE OF NURSING AND HEALTH SCIENCES:

COURSE CONTENT/TOPICS:

Unit I: Introduction to Population health and Epidemiology
Unit II: Introduction to Population Health Data; Metric Calculations and Biostatistics
Unit III: Initiating a Population Intervention Plan using an Epidemiologic Approach
Unit IV: Synthesis: Developing and Evaluating a Population Intervention Plan

COURSE WORK GUIDELINES AND GRADING CRITERIA:

UNIT DISCUSSION FORUM GUIDELINES

During two of the four units, students will be expected to participate in an online dialogue in the Discussion Forum. Students are expected to respond to each of the initial posts. You are expected to use two professional population health scholarly references. These must be course-related and database derived peer-reviewed journals, textbooks, or authoritative sources such as the CDC, Course related interdisciplinary journals include sources such as: Journal of Epidemiology, Journal of Rural Health, Journal for the Poor and Underserved, MMWR, Public Health Reports, Journal of Public Health, Journal and Preventive Medicine). Each forum can be accessed in the “Groups” tab in Bb, under the “Group Discussion” tool. “The Rubric for Online Participation” is located in the next section of this syllabus. Participation in discussions will count toward 20% of the final grade.

Guidelines for discussion participation are as follows.

1. You will select a learning exercise question at the end of one of the assigned reading chapters (from both assigned books) and will post on the discussion board. Students will have the first week of each unit to post an initial post and will have the second week of the unit to post a response "peer post" to two fellow students. Questions need to be posted before 6pm of due date.

QUESTIONS SHOULD BE: 1) well-grounded in either public health or epidemiology journal literature, 2) correctly composed in terms of use of the concepts and literature, 3) unbiased, 4) appropriate and relevant, 5) open-ended, 6) broad in latitude, 7) clear and precise, 8) and encouraging of discussion.

RESPONSES SHOULD BE: 1) Well-developed and individualized, see rubric for expected response length and depth.
Try to avoid questions with YES, NO or MAYBE as potential responses. Try to avoid simple knowledge questions such as WHY, WHEN, WHERE, and WHAT.

**Evaluation**

This assignment is evaluated as part of the course grade for participation attributed to each learning unit. Evaluation is based upon not only the Rubric for Online Participation but the quality, timing and quantity of submissions.

Below is a general description of the major assignments in the course. More detailed instructions will be found in within each specific Bb Unit under Discussion Assignments.

**RUBRIC FOR ONLINE PARTICIPATION**

Rubric for Assessing the Effectiveness of Student Participation in Online Discussion

<table>
<thead>
<tr>
<th>Criteria</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>POINTS</th>
</tr>
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<tbody>
<tr>
<td>Promptness and Initiative</td>
<td></td>
<td>Does not respond to most postings, rarely participates</td>
<td>Responds to postings several days after initial discussion, limited initiative</td>
<td>Responds to most postings within a 48 hour period</td>
<td>Consistently responds to postings promptly, demonstrates good initiative in directing the conversation</td>
</tr>
<tr>
<td>Delivery</td>
<td></td>
<td>Utilizes poor spelling and grammar, posts appear hastily composed, no sources cited</td>
<td>Multiple errors in spelling and grammar, sources are poor quality</td>
<td>Few grammar and spelling errors, uses singular peer-reviewed source</td>
<td>Consistently uses correct grammar and spelling, APA format is correct, 2 sources are peer-reviewed within last 5 years</td>
</tr>
<tr>
<td>Relevance</td>
<td></td>
<td>Posts topics which do not relate to the discussion content, population/public journal sources are absent</td>
<td>Posts are short in length and offer no further insight into the topic</td>
<td>Frequently posts topics that are relevant to discussion content, asks meaningful questions</td>
<td>Consistently posts topics related to the discussion topic, cites population health relevant references to support position</td>
</tr>
<tr>
<td>Expression</td>
<td></td>
<td>Does not express opinions clearly and articulately, &quot;rambles,&quot; or meaningless chatter</td>
<td>Unclear connection to topic evidenced in minimal expression of ideas</td>
<td>Opinions and ideas are stated clearly with occasional lack of connection to the topic or professional academic discourse</td>
<td>Consistently facilitates academic discourse in a clear, concise, and articulate and professional way</td>
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### Contribution to the Online Learning Community

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>Does not make an effort to</td>
<td>Does not make an effort to participate, is disconnected and indifferent</td>
</tr>
<tr>
<td>occasionally make</td>
<td>Occasionally makes meaningful reflection on the group effort, minimal effort to become involved</td>
</tr>
<tr>
<td>frequently attempt to direct</td>
<td>Frequently attempts to direct the discussion and to present relevant viewpoints for consideration by the group</td>
</tr>
<tr>
<td>aware of needs in the</td>
<td>Aware of needs in the community, motivates and enriches group discussion, presents creative approaches to the topic</td>
</tr>
<tr>
<td>community</td>
<td>TOTAL:</td>
</tr>
</tbody>
</table>

Adapted from Edelstein, Susan and Jason Edwards. "If You Build it, They Will Come: Building Learning Communities Through Threaded Discussions." Available at: http://www.westga.edu/~distance/ojdla/spring51/edelstein51.html

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**Bio-Statistic Application Exercises**

This assignment will be assigned in Unit 2. The assignment is based on the readings and information made available prior to the due date. ALL work must be shown when submitting your answers to the questions posed. You will still be required to respond to evidence based articles and their statistical analyses using case studies or article synopses. *This counts toward 25% of your final grade.*

**Epidemiology-Basic Concepts in Data Self-Study Series**

This is an online self-study series of 5 modules (30 min-1 hour) that students need to completed prior to starting Unit 2. Complete directions are available in Unit 1. There are 5 modules with a self-test for each module complete and earn a certificate. Five certificates are uploaded to successfully complete this assignment. *This counts toward 15% of the final grade.* [https://www.nwcphp.org/training/opportunities/online-courses](https://www.nwcphp.org/training/opportunities/online-courses)

**Population Intervention Plan (PIP):**

The purpose of this paper is to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of a population program plan for an identified health issue/problem. The report should be an individual effort; identical reports or reports with identical sections will be penalized. The program must identify baseline data rates and patterns of diseases to create an ongoing surveillance system. Based on what you have learned in this course and using any one of the population models presented earlier in this course e.g. Logic Model, PRECEDE-PROCEED Model (Green, 1968), etc. design a small program or initiative to address this disparity and provide program evaluation criteria for 1 and 5-year evaluation measurement. This plan will be presented via a narrated YouTube video. An outline of this paper can be submitted to the instructor for feedback 2 weeks prior to submission of the assignment. *The paper and the video presentation count toward 40% of the final grade.*
UNIVERSITY POLICIES:

Evaluation Input from Students

The faculty of the College of Nursing and Health Sciences places great value on evaluative input from students. Evaluation of courses, instructors and clinical facilities provides the College with important data which is used to strengthen the program. Data is analyzed as to trends and themes and is important to curriculum and sequencing decisions. All evaluations for courses posted are online. The online mechanism allows us the opportunity to tabulate and store information in order to analyze trends within the curriculum. Please be assured that this information is secured and not released until after grades are submitted. No names are available to faculty. In order to garner some reliability and validity, the College must have representative data from the student population. That representation, based on the literature, has been set at 70%. The College is anticipating that students will thoughtfully participate in the evaluation process which will assist the faculty with the growth of the program. A link to evaluations will be available on Blackboard toward the end of the semester. Thank you in advance for your assistance with the evaluation process.

Dropping a Course

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me, your academic advisor and the Financial Aid Office, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class.

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services Office at 361.825.5816

Title IX

As part of the Texas A & M Corpus Christi University policy, pregnant students are urged to contact the Title IX office for facilitation of academic issues impacted by pregnancy, delivery and subsequent complications. Contact information: Mr. Samuel Ramirez, Title IX Coordinator or Ms. Rosie Ruiz, Deputy Title IX Coordinator (361-825-5826).

Grade Appeals Process

**STATEMENT OF ACADEMIC CONTINUITY**

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**MILITARY STUDENTS**

Active duty military personnel, military spouses, and veterans with special circumstances (e.g. deployment, drill requirements, disabilities) are welcome and encouraged to communicate these circumstances, in advance if possible, to the course and clinical instructors.

**SUPPORT SERVICES**

Students are encouraged to seek faculty assistance in accessing University Services, including tutoring, health services, personal counseling, degree counseling, financial aid, learning resources, job/work placement, career guidance, and computer/technical support/instruction. If a student is interested in other support services provided by the University, the student is encouraged by the College of Nursing and Health Sciences and the University to seek these services. Please contact Rachel Holman your academic advisor to initiate the available student services options.

**Syllabus Disclaimer:** Faculty reserves the right to change non-critical aspects of the course to accommodate emergencies, or any unforeseen circumstances. Such changes will be announced as soon as feasible. *It is the STUDENT’S responsibility to keep abreast of course announcements.*