Course title and number  DDHS 4715: Research Methods
Term (e.g., Fall 200X)  Fall 2021
Meeting times and location  Tuesdays, 10am-12pm, Room 310

Course Description and Prerequisites

Course Description: Identification of research problems and variables; sampling; research design; statistical testing of data; critical review of dental literature; informative poster development for presentation to the public and professional groups.

Learning Outcomes or Course Objectives

Course Objectives*:
In addition to these general course objectives, each unit of study has its own specific set of objectives listed at the beginning of the chapter and corresponding PowerPoint presentations.

Upon completion of the course, the student will be able to:
1. Explain how research informs knowledge development and daily practice.
2. Differentiate between sources of human knowledge relative to research approaches.
3. Explain how an evidence-based decision making approach enhances critical thinking & professional decision-making.
4. Describe the scientific method, research process, and its relevance to healthcare.
5. Gain an appreciation for the role of research in evidence-based oral healthcare practice.
6. Evaluate the merits and limitations of oral healthcare research articles.

Related Competencies:
The following list of beginning competencies identifies the knowledge, skills and attitudes the dental hygiene student must acquire by graduation in order to become a competent, curious and caring practitioner of dental hygiene. This course will begin to address these specific competencies that will be needed to treat patients in a professional and competent manner. Refer to Competencies for the Dental Hygienist, Caruth School of Dental Hygiene.

Ethics
- 1.1. Apply ethical reasoning to dental hygiene and practice with professional integrity.

Information Management and Critical Thinking
- 2.1. Apply critical thinking skills and evidence-based decision making to the practice of dental hygiene.
- 2.2. Commit to self-assessment and lifelong learning in order to provide clinical care.
- 2.3. Effectively communicate with diverse populations without discrimination.
- 2.4. Employ the principles of scientific writing.

Professional Identity
- 3.1. Prepare for career opportunities within health care, industry, education, research, and other roles as they evolve for the dental hygienist.
- 3.2. Advance and promote the values of the profession through leadership, service activities, and affiliation with professional organization.
- 3.3. Contribute towards the knowledge base of the dental hygiene profession.

Community Involvement
- 5.3. Influence the public (consumer groups, businesses and government agencies) to support important health care issues.
Course Director Information

Name: Faizan Kabani, PhD, MBA, MHA, RDH, FAADH
Telephone number: 214.828.8483 [office]
Email address: Kabani@tamu.edu
Office hours: By appointment
Office location: College of Dentistry, Suite 136

Participating Course Faculty:
• Chelsea Moorman, RDH, BSDH
• Emet Schneiderman, PhD
• Eric Fox, RDH, MS
• Jane Cotter, RDH, MS
• Kayla Reed, RDH, MS
• Lisa Mallonee, MPH, RDH, RD, LD
• Lisa Mayo, RDH, MHA
• Mandrell Bufford, MSIS, AHIP
• Mary Vu, RDH, MS
• Maureen Brown, RDH, BSDH, MS-HIED

Textbook and/or Resource Material

Required Resources

Research Methods in the Health Sciences (1st Ed.)
Authors: Deborah Zelizer, Kathleen McGoldrick, and Deborah Firestone
Published: 2018
ISBN: 978-1-5165-1866-1

Evidence-Based Dentistry for the Dental Hygienist
Edited by Julie Frantsve-Hawley
Published: 2014
ISBN: 978-0-86715-646-1

Recommended Resources

AMA Manual of Style: A Guide for Authors and Editors (10th Ed.)
Edited by JAMA & Archives Journals
Published: 2007

Grading Policies

Evaluation Criteria/Methods: Conscientious attention to deadlines, course-meeting times, completion of reading/written assignments, and active participation in all class activities can have a favorable impact on your learning, as well as that of your classmates. Final grade will be based on the following metrics:

<table>
<thead>
<tr>
<th>Assessment Category</th>
<th>Value</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination 1 &amp; 2</td>
<td>50%</td>
<td>Individual Grade</td>
</tr>
<tr>
<td>Journal Club (Dental Public Health)</td>
<td>10%</td>
<td>Individual Grade</td>
</tr>
<tr>
<td>Informative Poster Development</td>
<td>30%</td>
<td>Individual Grade</td>
</tr>
<tr>
<td>Dentalcare.com C.E. Assignments – 4 Courses Total</td>
<td>10%</td>
<td>Individual Grade</td>
</tr>
</tbody>
</table>

Note: Assessment specific guidelines and rubrics are available as appendices.
*Students that make <75 on any examinations are required to meet with the Course Director to review individual performance and seek remediation, where necessary.
**Professionalism, Late Submission, and Switching Exam Policy:**

- **Professionalism:** If a student fails to demonstrate professional behavior during the course, a meeting with the course director may be required. Unprofessional behavior includes, but is not limited to, a breach in integrity, excessive tardiness and absenteeism, cheating, lying, and collusion, disrespect to peers, staff, faculty and insubordination. Unprofessional conduct may also be subject to the [College of Dentistry Due Process Document](#).

- **Late Assignments:** Submission of assignments are due as stated by the Course Director. Assignments submitted after the due date will be considered late and students will be penalized five points per calendar day the assignment is submitted late (this includes weekends).

- **Switching Exams:** Due to the sensitive timing/scheduling of the course exam dates cannot be switched. Please refer to the institutional ‘Class Voting Rules’ document for further details.

**Attendance Policy:**

Texas A&M University views class attendance as an individual student responsibility. In the Caruth School of Dental Hygiene regular and punctual attendance is mandatory for scheduled or rescheduled classes, clinics and related activities/events. The course director will check attendance at the start of the class/activity. Students who are not present at that time will be marked absent.

**IMPORTANT:** All absences must be reported to Pam Hines by PHONE at 214-828-8340 and must be received prior to the beginning of the class/activity.

**Excused Absences**

**Illnesses or emergencies:** It is understood that absences due to severe or contagious illness, injuries or emergencies may occur. An absence due to illness may require a medical confirmation note from a student’s medical provider. For injuries or illnesses that require a student to be absent from class for three or more business days, a note from his or her medical provider is mandatory. If a student has frequent sick days, the program director may require a medical provider’s note for each absence. **Note:** An absence for a non-acute medical service does not constitute an excused absence.

**Religious holy day:** A student whose absence is excused under or the observance of religious holy day will be allowed to take an examination or complete an assignment from which the student is excused within 3 days after the absence. **If the student fails to schedule and complete the exam or assignment within three days, a grade of zero will be given.**

For additional information on excused absences, see [Texas A&M Student Rule 7.1](#).

**Unexcused Absences**

Tardiness and non-emergent appointments (illnesses not considered severe or contagious) scheduled during class time will be considered an unexcused absence. Quizzes and exams start at the beginning of class time. Students who arrive late will not receive extra time to take the quiz/exam. Since classroom learning applies directly to patient care, sleeping in class is considered an unexcused absence and is subject to the remediation policy. **Students with unexcused absences or late arrivals will have TWO points deducted from their final course grade. No make-up quiz/test will be given** if an absence is unexcused on a test day. Examinations will not be administered in advance for a planned/anticipated unexcused absence.

**General Information**

The designation of excused or unexcused absence will be determined on an individual basis by the Program Director and Student Affairs.

For any absences (excused or unexcused), it will be the student’s responsibility to review the lecture recordings for the class(es) missed. Additionally, the student must complete a make-up assignment(s) within 10 calendar days (including weekends) after returning to school. The make-up assignment will require the student to thoroughly answer the learning objectives for the class session(s) and define any
listed terminology. The assignment must demonstrate the student has listened to the recording(s) and read the assigned reading. Make-up assignments must be typed, contain the title of the missed class session(s) and be sent via email within the 10-calendar-day deadline. **Failure to complete the make-up assignment(s) within this time frame will result in TWO points being deducted from student’s final grade.**

**IMPORTANT:** Failure to remediate all absences (excused or unexcused) by the final exam or end of semester may result in an “F” for the course.

To review the comprehensive Texas A&M University student attendance rule, visit [Rule 7](#).

**Grading Scale:**

- A = 90.0-100
- B = 80.0-89.99
- C = 75-79.99
- D= 70-74.99
- F= <70

**Grades including the final course grade will not be curved or rounded.**

**Americans with Disabilities Act (ADA)**

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 Associate Dean for Academic Affairs in charge of Disability Services, Room 514, or call 214-828-8208 for more information. For additional information, visit [TAMU Department of Disability Services](#).

**Academic Integrity**

*“An Aggie does not lie, cheat, or steal, or tolerate those who do.”*

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the honor Code, to accept responsibility, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information, visit [TAMU Aggie Honor System Office](#).

**Diversity Statement**

*“Texas A&M University is committed to enriching the learning and working environment for all visitors, students, faculty, and staff by promoting a culture that embraces inclusion, diversity, equity, and accountability. Diverse perspectives, talents, and identities are vital to accomplishing our mission and living our core values.”*

**Mental Health & Wellness**

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student’s academic success and overall wellbeing. Students are encouraged to engage in proper self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. Emergency 24-hour help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org. Students can also contact the Office of Student Affairs at TAMUCOD at 214-828-8232.
Virtual Classroom Expectations & Etiquette

Due to the COVID-19 pandemic, classes might be held in a virtual setting this semester. Class attendance is mandatory, and failure to attend the virtual sessions will be subject to the above absence policy. Students are required to enter the virtual classrooms with the audio muted. Video must be activated at the beginning of the class session and remain on until the session concludes. Unless the instructor provides other directions, questions should be posted through the virtual chat/discussion board.

During class, students are expected to be alert, engaged, and sitting upright in a well-lit environment that allows their faces to be clearly visible. Students should attempt to minimize extraneous interruptions from other household members, including pets. Questions or concerns about the use of virtual meeting technology and/or accessibility should be presented to the Course Director and Instructional Design within Office of Academic Affairs.

Remote Exam Proctoring

All exams for this course will be proctored by ExamSoft remote proctoring tools, ExamID and ExamMonitor. The use of these proctoring tools requires that the student have a laptop or desktop with a working webcam and microphone. It is the responsibility of each student to ensure that they have a working computer that complies with these requirements. The Apple iPad is not compatible with ExamMonitor. Students who do not have an appropriate laptop or desktop will need to be placed with the accommodations group to be proctored by a live person. It is the students’ responsibility to facilitate inclusion with the accommodations group.

ExamMonitor records the student’s screen and the student’s facial movements via the webcam. ExamMonitor will flag all activity, other than the student looking directly at the computer screen, as potential academic dishonesty. The student’s entire face must be visible to the webcam. All sounds, such as talking or paper rustling, will be flagged as potential academic dishonesty.

Students must take every precaution to ensure that they will have a secure and quiet environment for the entirety of the scheduled exam session. This includes that no person or pet intrudes on the exam session. Students must put away all items, including phones, notebooks, paper, textbooks, or any other potentially distracting item.

All proctoring reports will be reviewed for flagged incidents of academic dishonesty. The judgement of flagged incidents of potential academic dishonesty will be at the discretion of the course faculty. If an incident is determined to be an act of academic dishonesty, the student will then be subject to disciplinary action in line with the policies of Texas A&M University Health and the College of Dentistry.

If a student unintentionally triggers what they feel will be a flagged incident, then it is their responsibility to immediately communicate the incident to the course faculty once the exam session has concluded. The act of reporting the incident to faculty does not guarantee that the incident is not deemed to be an act of academic dishonesty. All flagged incidents will be reviewed.
<table>
<thead>
<tr>
<th>Week</th>
<th>Learning Module</th>
<th>Expectations</th>
<th>Instructor</th>
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</table>
| Week 1 8/17/21 | **Course Overview:**  
• Syllabus, Rubrics, & Expectations  
• ADHA Research Agenda  
**Introduction to Research:**  
• Evidence-Based Decision Making  
• Scientific Method & Research Process  
• PICO and FINER Criterions | **Pre-Module Materials:**  
-Zelizer (Chapters 1 & 4)  
-Frantsve (Chapters 1 & 3)  
-Resources on Canvas | Dr. Kabani |
| Week 2 8/24/21 | **Library Resources Workshop (ICL):**  
• Institutional Research Databases  
• Detecting Source Credibility/Timeliness  
• Plagiarism & AMA Citation Style Lab | **Pre-Module Materials:**  
-Zelizer (Chapter 3)  
-Frantsve (Chapters 3-4)  
-AMA Manual  
-Resources on Canvas | Mr. Bufford Librarian |
| Week 3 8/31/21 | **Evaluating Published Literature:**  
• The Art & Science of Criticism  
• Elements of Critiquing Literature  
• Journal Club Participation | **Pre-Module Materials:**  
-Zelizer (Chapter 3)  
-Frantsve (Chapter 5)  
-Resources on Canvas | Dr. Kabani |
| Week 4 9/7/21 | **Research Design & Levels of Evidence:**  
• Primary vs. Secondary Research  
• Qualitative vs. Quantitative Approaches  
• DV, IV, and Extraneous Variables | **Pre-Module Materials:**  
-Zelizer (Chapters 6-9)  
-Frantsve (Chapter 2)  
-Resources on Canvas | Dr. Kabani |
| Week 5 9/14/21 | **Legal & Ethical Concerns in Research:**  
• Informed Consent & Confidentiality  
• Human Experimentation Regulations  
• Institutional Review Board  
**TAMU Writing Center Workshop:**  
• Overview of Undergraduate Services  
• Scientific & Technical Writing | **Pre-Module Materials:**  
-Zelizer (Chapters 2)  
-Resources on Canvas | Dr. Schneiderman  
COD IRB Chair  
TAMU Writing Center |
| Week 6 9/21/21 | **Exam 1 – ExamSoft®**  
**Modules Covered:** Introduction to Research, Library Resources Workshop, Evaluating Published Literature, Legal & Ethical Concerns in Research, and Research Designs & Levels of Evidence. | | |
| Week 7 9/28/21 | **Data Collection:**  
• Sampling Techniques  
• Validity & Reliability  
• Sensitivity & Specificity | **Pre-Module Materials:**  
-Zelizer (Chapter 5)  
-Resources on Canvas | Dr. Kabani |
| Week 8 10/5/21 | Introduction to Biostatistics:  
• Theories, Principles, & Fallacies  
• Descriptive & Inferential Statistics  
• Selection & Use of Statistical Tests  
• Statistical & Clinical Significance | Pre-Module Materials:  
- Zelizer (Chapter 5)  
- Frantsve (Chapter 7)  
- Resources on Canvas | Dr. Kabani |
|----------------|--------------------------------------------------------------------------------|---------------------------------|-----------------------------|
| Week 9 10/12/21 | Dissemination & Implementation:  
• Presenting and Publishing Research  
• Professional Dress Code Guidelines  
• Scientific and Technical Writing | Pre-Module Materials:  
- Frantsve (Chapters 8-9)  
- Resources on Canvas | Dr. Kabani |
| Week 10 10/19/21 | **Exam 2 – ExamSoft®**  
**Modules Covered:** Data Collection, Introduction to Biostatistics, and Dissemination & Implementation. | | |
| Week 11 10/26/21 | TAMU Writing Center Workshop:  
• Developing Research Posters | Pre-Module Materials:  
- Resources on Canvas | Dr. Kabani  
TAMU Writing Center |
| Scientific Abstracts:  
• Composing Informative Abstracts | | | |
| 11/2/21 through 12/17/21 | Independent Study [Weeks 12-18] | | |
DDHS 4715: Research Methods

Syllabus Agreement Form

(Please initial each line)

_________ I have read and understand the course syllabus and my responsibilities to successfully complete DDHS 4715: Research Methods.

_________ I have read and understand the institutional policies on academic honesty and have pledged accordingly to the Aggie Honor Code.

_________ I have read and understand that the course syllabus provides a tentative timeline and that the course director has the ability to adapt/modify the syllabus, as needed. The course director will provide written notice to all students in as advance as possible for any changes that may arise.

Print Student Name: ________________________________________

Student Signature: _________________________________________

Date Signed ______________________________________________

Course Director Use Only:

Received by: ______________________________________________

Date Received ________________________________