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**COURSE DESCRIPTION:**

This course covers current evidence on topics involving the anatomy, biomechanics, assessment, and intervention for the spine. The independent study nature of this course is designed to integrate article reading and video demonstration to teach the function and anatomy of the lumbopelvic and cervicothoracic regions, the assessment process of the low back and neck, manual techniques, and therapeutic exercises.

**CAPTE Standards & Elements:**

Standard 7: Elements 7A, 7C, and 7D

**DEPARTMENT OFFERING THE COURSE:**

UND School of Medicine and Health Sciences - Department of Physical Therapy

**CREDIT HOURS:** 1 Credit Hour

**ABOUT THE PROFESSOR & CONTACT INFORMATION:**

Name: Kevin O'Brien, PT, DPT, Cert. MDT

Phone: (701)777-7381

Email: kevin.obrien@und.edu

Office Location: UND-SMHS Suite E321, Room E341

Student Hours: By appointment

**COURSE CONTACT HOURS:**

Independent readings – 15 hours

Discussion board – 2 hours

**COURSE PREREQUISITES:**

Registered in the professional Physical Therapy program.

**COURSE OBJECTIVES:**

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

1. Identify the functional anatomy of the neuromusculoskeletal system and describe how individual structures are addressed in evaluation and treatment of mechanical back and neck pain. (CAPTE SRE: 7A, 7D1, 7D10)
2. Explain how the nervous tissue contributes to pain symptoms in the low back and neck. (CAPTE SRE: 7A, 7D1, 7D10)
3. Describe the process of potential for declining load bearing tolerance of the skeleton as it ages, becomes injured, and adaptively changes. (CAPTE SRE: 7D3, 7D21)
4. Predict the compressive and tensile responses of joints and soft tissue accompanying various postures of the cervical and lumbar spine. (CAPTE 7A, 7D1, 7D3)
5. Apply current concepts of biomechanics, therapeutic exercise, and manual therapy to treatment of mechanical pain of the low back and neck. (CAPTE SRE: 7C1, 7D10)
6. Demonstrate the ability to critically review and summarize scholarly articles and identify application of the article content to relevant clinical practice. (CAPTE SRE: 7C1, 7D12,

**COURSE SCHEDULE AND OUTLINE OF CONTENT:**

See attached schedule for suggested timeframe of course requirement completion.

**DESCRIPTION OF TEACHING METHODS AND LEARNING EXPERIENCES:**

The above objectives contribute to the Curriculum Practice Model components of Patient Care: Screening/evaluation/progression/discharge, Patient Care: Physical Therapy Interventions, Practice Model Components of Foundational Science; Clinical Science, Professional Practice, Patient/Client Practice and Management.

Students will be required to demonstrate competency in course content through written examinations and reflection-discussion.

**COURSE MODE OF DELIVERY:**

Online, asynchronous

**MATERIALS – TEXT, READINGS, & SUPPLEMENTARY READINGS:**

Selected independent article readings (provided via Blackboard)

**METHODS OF STUDENT EVALUATION:**

In this course, your learning will be assessed in the following ways:

- Completion of independent article reading and review
- Reflection / reaction postings
- Written examinations (2)

**GRADING SCALE:**

Grading Scale	Breakdown
A 90% to 100%	30% - Completion of assigned article readings
B 80% to 89.9%	20% - Reaction board posts and responses
C 76% to 79.9%	25% - Lumbopelvic written examination
F < 76%	25% - Cervicothoracic written examination

For more information on grading policies, please refer to the [UND-PT Scholastic Standards Document](#)

**COURSE ACCESS & TECHNICAL REQUIREMENTS**

This course was developed and will be facilitated utilizing Blackboard. For access go to: <http://blackboard.UND.edu> and log in with your NDUS.Identifier. If you do not know your NDUS Identifier or have forgotten your password, please visit [Your NDUS Account Webpage](#)

Visit the [UND Technical Requirements](#) webpage for more information. Students are expected to use their official UND email in the course. For technical assistance, please contact [UND Technical Support](#) at 701.777.2222

**ARTIFICIAL INTELLIGENCE (AI)**

Artificial Intelligence tools are allowed in this course as approved by the instructor(s). Students are required to disclose if they use AI-generated text or images and how they apply it in their work. Failure of students to acknowledge their use of AI or using fabricated information could result in their violation of the Academic Integrity Policy. Students must ensure the originality of their work, maintain academic integrity, and avoid

any type of plagiarism. The students need to understand the material and complete assignments on their own, using AI tools as a supplement rather than a replacement for their work. Students should not use sources that are cited by AI tools without having read them because generative AI tools can either create fake citations or cite a real piece of writing, but the cited content may be inaccurate. The faculty reserves the right to use various plagiarism-checking tools in evaluating students' work, including those screening for AI-generated content, and impose consequences accordingly.

For more information on AI Policies, please visit [Artificial Intelligence Resources](#).

## UNIVERSITY OF NORTH DAKOTA POLICIES & RESOURCES:

### Notice of Nondiscrimination

It is the policy of the University of North Dakota that no person shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, genetic information, marital status, veteran's status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Assistant Vice President for Equal Opportunity and Title IX/ADA Coordinator, 102 Twamley Hall, 701.777.4171, [UND.EO.TitleIX@UND.edu](mailto:UND.EO.TitleIX@UND.edu) or the Office for Civil Rights, U.S. Dept. of Education, 230 S. Dearborn St., 37th Floor, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.

### Academic Integrity

Academic integrity is a serious matter, and any deviations from appropriate behavior will be dealt with strongly. At the discretion of the professor, situations of concern may be dealt with as a scholastic matter or a disciplinary matter.

As a scholastic matter, the professor has the discretion to determine appropriate penalties for the student's workload or grade, but the situation may be resolved without involving many individuals. An alternative is to treat the situation as a disciplinary matter, which can result in suspension from the University, or have lesser penalties. Be aware that I view this as a very serious matter and will have little tolerance and/or sympathy for questionable practices. A student who attempts to obtain credit for work that is not their own (whether that be on a paper, quiz, homework assignment, exam, etc.) will likely receive a failing grade for that item of work, and at the professor's discretion, may also receive a failing grade in the course. For more information read the [Code of Student Life](#).

### Accessibility Statement

The University of North Dakota is committed to providing equal access to students with documented disabilities. To ensure access to this class and your program, please contact [Accessibility for Students](#) to engage in a confidential discussion about accommodations for the classroom and clinical settings. Accommodations are not provided retroactively. Students are encouraged to register with Accessibility for Students at the start of their program.

More information can be obtained by email, [UND.accessibilityforstudents@UND.edu](mailto:UND.accessibilityforstudents@UND.edu), or by phone at 701.777.2664.

### Religious Accommodations

UND offers religious accommodations, which are reasonable changes in the academic environment that enable a student to practice or observe a sincerely held religious belief without undue hardship on the University. Examples include time for prayer or the ability to attend religious events or observe a religious holiday. To request an accommodation, complete [student religious accommodation request form](#). If you have any questions, you may contact the [Equal Opportunity & Title IX Office](#).

### Pregnancy Accommodations

Students who need assistance with academic adjustments related to pregnancy or childbirth may contact the [Equal Opportunity & Title IX Office](#) or Academic Affairs to learn about your options. Additional information and services may be found at [Pregnancy Resources](#).

### Resolution of Problems

Should a problem occur, you should speak to your instructor first. If the problem is not resolved by speaking

with your instructor, refer to the college grievance policy by contacting the department chair or the dean's office. [Link to college grievance policy.] Should the problem persist after taking these initial steps, you have the right to go to the provost next, and then to the president.

### Reporting of Discrimination, Harassment, or Sexual Misconduct

If you or a friend has experienced sexual misconduct, such as sexual harassment, domestic violence, dating violence, or stalking, please contact the Equal Opportunity & Title IX Office or UND's Title IX Coordinator, Donna Smith, for assistance at 701.777.4171 or donna.smith@UND.edu.

You may also contact the Equal Opportunity & Title IX office if you or a friend has experienced discrimination or harassment based on a protected class, such as race, color, national origin, religion, sex, age, disability, sexual orientation, gender identity, genetic information, pregnancy, marital or parental status, veteran's status, or political belief or affiliation.

### Faculty Reporting Obligations Regarding Discrimination, Harassment, or Sexual Misconduct

It is important for students to understand that faculty are required to share with UND's Title IX Coordinator any incidents of sexual misconduct or of discrimination or harassment based on a protected class that they become aware of, even if those incidents occurred in the past or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow UND to provide resources to help the student continue to be successful at UND. If you have been impacted by discrimination, harassment, or sexual misconduct, you can find information about confidential support services at the Equal Opportunity and Title IX webpage.

### Health and Safety

UND is committed to maintaining a safe learning environment while providing quality learning experiences for our students. As such, UND asks students and instructors to be flexible when necessary to promote a safe environment for learning. Please do not attend an in-person class or lab if you are feeling ill or if you have been directed by health professionals to quarantine or isolate. UND follows isolation and quarantine guidelines recommended by the [CDC and the North Dakota Department of Health](#). If you are not able to attend class or lab, please notify your instructor as soon as possible and discuss options for making up any missed work in order to ensure your ability to succeed in the course. If you will have an extended absence due to serious illness or other uncontrollable circumstances, you may request an absence notification through the [Office of Community Standards](#). Similarly, if your instructor is ill they may need to cancel class or temporarily move your course to online delivery to ensure that you are able to complete the course successfully. Please consult the [COVID-19 at UND](#) webpage for information regarding on-campus COVID-19 testing, isolation and quarantine guidelines, and vaccines.