



Department: PTA Program
Course Title: Physical Agents
Section Name: PTHA 1431
Semester: Spring 2013
Time: _ 8:30-11:30 M; 8:30-10:30 T, TH
Classroom: CT_104

Instructor: Matt Bertrand; Tana Pipes
Email: mbertrand@odessa.edu ; tpipes@odessa.edu

Office: 103A; 103

Phone: 432-335-6830; 432-335-6836

Office Hours: _ Matt:

Tana:

Monday	12:30-3:30	8:00 – 8:30; 3:30 – 5:30
Tuesday	3:30-4:30	8:00 – 8:30; 3:30 – 5:30
Wednesday	8:30-11:30 & 12:30-2:30	8:00 – 8:30; 3:30 – 5:30
Thursday	3:30-4:00	8:00 – 8:30; 3:30 – 5:30

Course Description:

Biophysical principles, physiological effects, intervention efficacy and application of physical agents. Thermal agents, hydrotherapy, ultrasound, electromagnetic radiations, electrical current, biofeedback, traction, intermittent compression, continuous passive motion, and therapeutic massage are studied. (ICOs 1, 2, 3, 4, 5)

Required Texts:

- 1. Physical Agents in Rehabilitation: From Research to Practice 3rd Edition by M. Cameron, Saunders, 2009**
- 2. Outcome-Based Massage 2nd Edition by C. Andrade & P. Clifford, Lippincott Williams & Wilkins, 2008**
- 3. PTHA 1431 Course Packet for Spring 2013**

Description of Institutional Core Objectives (ICO's)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Therefore, with the assistance of the Undergraduate Education Advisory Committee, the Coordinating Board has approved guidelines for a core curriculum for all undergraduate students in Texas.

Through the application and assessment of objectives within the institution's core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance

intellectual and practical skills that are essential for all learning. Appropriate Odessa College faculty periodically evaluates all of the courses listed in the descriptions on the following pages of this catalog and keys them to Odessa College's Institutional Core Objectives (ICOs), as defined by the Texas Higher Education Coordinating Board (THECB). (Source: *Odessa College Catalog of Courses 2012-2013*, page 73)

Odessa College's Institutional Core Objectives (ICOs):

- 1) *Critical Thinking Skills* - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2) *Communication Skills* - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 3) *Empirical and Quantitative Skills* - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- 4) *Team work* - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- 5) *Personal Responsibility* - to include the ability to connect choices, actions and consequences to ethical decision-making
- 6) *Social Responsibility* - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Learning Outcomes for PTHA 1431 Physical Agents(Source: *Odessa College Catalog of Courses*)

Outcome	ICO
Safely and effectively apply the following physical agents within the plan of care established by the physical therapist: thermal agents, hydrotherapy, massage, ultrasound, ultrasound combined with electrical stimulation, electrical current, biofeedback, traction, intermittent compression, and diathermy, infrared, ultraviolet, laser, and continuous passive motion	<i>Critical Thinking Skills</i> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
Demonstrate the ability to read and interpret professional literature relative to evidence-based practice and the application of selected physical agents or physical therapy interventions.	<i>Communication Skills</i> - to include effective development, interpretation and expression of ideas through written, oral and visual communication
Utilize appropriate data collection techniques to monitor response to treatment	<i>Empirical and Quantitative Skills</i> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Perform labs and check-off requirements with fellow students to allow real world practice.	<i>Teamwork</i> - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
Document application of and patient's response to physical agents in a timely manner with validation by the supervising physical therapist	<i>Personal Responsibility</i> - to include the ability to connect choices, actions and consequences to ethical decision-making
Regard patients with dignity and compassion during the use of physical agents through proper draping and handling techniques.	<i>Social Responsibility</i> - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Odessa College Policies

Academic Policies

Note that the OC Student Handbook states (page 32) that “[i]n cases of academic dishonesty, the instructor has the authority to impose appropriate scholastic penalties. Complaints or appeals of disciplinary sanctions may be filed in accordance with the college due process procedure. Copies of the college due process procedure are available in the office of The Director of Student Life (CC104).” For more information on your rights and responsibilities as a student at Odessa College, please refer to the following: *The 411 of OC: Student Handbook 2012-2013*; *Student Rights & Responsibilities* <http://www.odessa.edu/dept/studenthandbook/handbook.pdf>

Scholastic Dishonesty

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism and collusion.

"Cheating on a test" shall include:

- Copying from another student's test paper
- Using test materials not authorized by the person administering the test.
- Collaborating with or seeking aid from another student during a test without permission from the test administrator.
- Knowingly using, buying, selling, stealing or soliciting, in whole or in part, the contents of an unadministered test.
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
- Substituting for another student, or permitting another student to substitute for one's self, to take a test.
- Bribing another person to obtain an unadministered test or information about an unadministered test.
- "Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work.

- "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements. (Source: *Odessa College Student Handbook 2012-2013*, page 29-30)

Special Populations/Disability Services/Learning Assistance

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Odessa College affirms that it will provide access to programs, services and activities to qualified individuals with known disabilities as required by **Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA)**, unless doing so poses an undue hardship or fundamentally alters the nature of the program or activity. Disabilities may include hearing, mobility or visual impairments as well as hidden disabilities such as chronic medical conditions (arthritis, cancer, diabetes, heart disease, kidney disorders, lupus, seizure disorders, etc.), learning disabilities or psychiatric or emotional disabilities. A student who comes to Odessa College with diagnosed disabilities which may interfere with learning may receive accommodations when the student requests them and submits proper documentation of the diagnosis. A Request for Accommodations form and guidelines for beginning the request process are available in the OC Help Center or on the Odessa College web site at www.odessa.edu/dept/counseling/disabilities.htm. The college strives to provide a complete and appropriate range of services for students with disabilities such as assistance with testing, registration, information on adaptive and assistive equipment, tutoring, assistance with access and accommodations for the classroom where appropriate. For information regarding services, students with disabilities should contact the Office of Disability Services in the OC Help Center located in Room 204 of the Student Union Building or call 432-335-6433. (Source: *Odessa College Catalog of Courses 2012-2013*, page 52)

Dropping a Course or Withdrawing from College

Students wishing to drop a non-developmental course may do so online using WebAdvisor, at the Wrangler Express, or Registrar's Office. A student wishing to drop a developmental course or withdraw from college should obtain a drop or withdrawal form from the Wrangler Express or the Registrar's Office. Students are encouraged to consult with instructors prior to dropping a class. Students may not completely withdraw from the college by use of the Web. Students must drop a class or withdraw from college before the official withdrawal date stated in the class schedule. Students who are part of the Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar. **No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to complete the drop/withdrawal process will result in a grade of "F."** (Source: *Odessa College Catalog of Courses 2012-2013*, page 36)

Learning Resource Center (LRC; Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian" service

provide additional help.

Student Success Center (SCC)

Located in the LRC, the Student Success Center (SSC) provides assistance to students in meeting their academic and career goals. We strive to provide new and updated resources and services at no charge to OC students. Academic support services include tutoring, study skills training, workshops, and the mentoring program. Tutoring is available for a variety of subjects including college mathematics, English, government, history, speech, chemistry, biology, and all developmental coursework. Appointments are preferred, but walk-ins will be served as soon as possible. Smarthinking online tutoring is also available. All computers in the center have Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing and mathematical skills. The center also offers special assistance to students preparing for the THEA/COMPASS test. Computer lab assistants are available to assist students with student email, Blackboard, OC portal, Course Compass and more. For more information or to make an appointment, please call 432-335-6673 or visit www.odessa.edu/dept/ssc/ (Source: *Odessa College Catalog of Courses 2012-2013, page 54*)

Student E-mail

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **Correspondence will be submitted using your Odessa College email as an alternative method to contact you with information regarding this course.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Expectations for Engagement – Face to Face Learning

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
 - provided my contact information at the beginning of the syllabus;
 - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
 - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will

- provide clear information about grading policies and assignment requirements in the course syllabus, and
 - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
- return classroom activities and homework within one week of the due date and
 - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
- attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
 - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
 - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
- missing class when a major test is planned or a major assignment is due;
 - having trouble submitting assignments;
 - dealing with a traumatic personal event; and,
 - having my work or childcare schedule changed so that my classroom attendance is affected.
3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will
- seek out help from my instructor and/or from tutors;
 - ask questions if I don't understand; and,
 - attend class regularly to keep up with assignments and announcements.

Institutional Calendar Spring 2013 (1/21-05/16)

<http://www.odessa.edu/college-calendar12-13.pdf>

Registration:

On the Web (5 am to Midnight, 7 days a week).....	Nov 12-Jan 21
In Person (See Business Hours Above).....	Nov 12-Jan 18
***REGISTRATION PAYMENT DEADLINE	
* For students registered who register prior to Jan 7.....	Payment is DUE Jan 7 (Mon)
* For students who register on or after Jan 7.....	Due on Day of Registration
Holiday (Martin Luther King Day - Offices closed except for Wrangler Express).....	Jan 21 (Mon)
Classes Begin.....	Jan 22 (Tue)
Late Registration & Schedule Changes (Add/Drop):	
On the Web (5 am to Midnight, 7 days a week).....	Jan 22-23 (Tue-Wed)
In Person (See Business Hours Above).....	Jan 22-23 (Tues-Wed)
** Late Registration & Add/Drop Payment Deadline.....	Due on Day of Registration
Census Day.....	Feb 6 (Wed)
Deadline for Spring Degree Application.....	Mar 20 (Wed)
First Eight Weeks End.....	Mar 22 (Fri)
Spring Break (Offices Closed – No Classes).....	Mar 11-16 (Mon-Sat)
Second Eight Weeks Begin.....	Mar 25 (Mon)
Holiday (Good Friday).....	Mar 29 (Fri)
Last Day to Drop or Withdraw with a “W” (full semester length courses).....	Apr 16 (Tues)
Student Evaluation of Instruction Survey Available Online.....	April 28-May 4
Last Day to Drop or Withdraw with a “W” (2nd eight week courses).....	Apr 30 (Tues)
Last Class Day.....	May 11 (Sat)
Final Exams.....	May 13-16 (Mon-Thurs)
Spring Graduation.....	May 17 (Fri)
End of Semester.....	May 17 (Fri)

Course Policies

Disclaimer

This syllabus is tentative and subject to change in any part at the discretion of the instructor. Any changes will be in accordance with Odessa College policies. Students will be notified of changes, if any, in timely manner.

Original Effort

The work submitted for this course must be original work prepared by the student enrolled in this course. Efforts will be recognized and graded in terms of individual participation and in terms of ability to collaborate with other students in this course.

Description of students

Students enrolled in this course have successfully completed Basic Patient Care Skill, Profession of PT, and Functional Anatomy. These students are getting prepared for their first clinical rotation.

Course prerequisites

PTHA 1413; PTHA 1405; PTHA 1201 (Source: *Odessa College Catalog of Courses 2012-2013*, page 17)

Course Alignment with Industry Standards

This Program is accredited through the Commission on Accreditation in Physical Therapy Education (CAPTE)

Competencies

- 1.0 To demonstrate competency in safely and effectively applying the following physical agents within the plan of care established by the physical therapist: thermal agents, hydrotherapy, massage, ultrasound, ultrasound combined with electrical stimulation, electrical current, biofeedback, traction, intermittent compression, diathermy, infrared, ultraviolet, laser, and continuous passive motion, the student should be able to:
 - 1.1 *Describe mechanisms of injury, inflammation and repair.
 - 1.2 Identify theories of pain transmission and perception.
 - 1.3 *Explain methods for pain management.
 - 1.4 *Describe the rationale, physiological effects and indications of each physical agent.
 - 1.5 *Describe / discuss the role of physical agents in achieving short and long term goals within the plan of care.
 - 1.6 *List and/or explain contraindications and precautions of each physical agent.
 - 1.7 *Become familiar with equipment and supplies prior to performance of a treatment.
 - 1.8 *Inspect the area to be treated.
 - 1.9 *Explain purpose and effects of each physical agent to patient prior to application.
 - 1.10 *Perform and/or explain correct application of each physical agent according to the guidelines established.
 - 1.11 *Monitor the patient's response to each of the physical agents applied and modify the treatment as indicated.
 - 1.12 *Document application of and patient's response to physical agents.
- 2.0 To demonstrate competency in utilizing appropriate data collection techniques to monitor response to treatment, the student should be able to:
 - 2.1 *Visually identify normal versus abnormal skin responses (including but not limited to color, blanching and mottling) to application of the physical agents listed above.
 - 2.2 *Assess normal versus abnormal changes in vital signs (blood pressure, pulse, respiration and temperature) in response to application of the physical agents listed above.
 - 2.3 *Assess the degree of edema before and after treatment using both circumferential measurement and volumetric water displacement.
 - 2.4 *Use palpation to assess soft tissue and skin temperature.
 - 2.5 *Identify responses to treatment that necessitate immediate action or adjustments within the plan of care and communication with the supervising physical therapist.
- 3.0 To demonstrate competency in reading and interpreting professional literature relative to evidence-based practice and the application of selected physical agents or physical therapy interventions, the student should be able to:
 - 3.1 *Locate, examine and interpret professional literature related to assigned topics according to guidelines provided in class.
 - 3.2 *Complete Blackboard assignments and participate in discussion boards according to guidelines provided in class.

Digital Protocol

Cell phones must be placed on either *vibrate* or *silent* mode and are to be accessed in emergency cases

only. The use of laptops or any other digital device is permitted in order to facilitate note-taking relative to instruction. Any written assignments will be submitted electronically on Blackboard. **The electronic recording of the time on Blackboard will be considered the time of assignment submission. Take necessary steps to ensure that your assignments are submitted on "Blackboard" time.** Back-up

and/or additional copies of all assignments submitted is encouraged. **Computers/printers are available to OC students in the LRC (301-303); therefore, not having access to a computer due to technical issues (crash; corrupted files) will not be considered as an acceptable reason for not completing assignments.** If there is a loss of server connection with Odessa College due to maintenance, then an email will be sent to student with pertinent information and status reports. Assignments submitted electronically need to be **WORD documents (doc or docx).**

Attendance Policy

Students are expected to attend class regularly. Excessive absences will be grounds for disciplinary action, and will be determined on a case-by-case basis. If you are more than 15 minutes late to class or leave class early without notifying the instructor, this will count as an absence.

AVID

This course has been identified as a course by Career, Technical, and Workforce Education as one in which teaching and learning strategies adopted by AVID will be implemented. As a student in the legal program, you will be expected to develop an understanding of the strategies, to model the strategies, to maintain fidelity of implementation, and to examine how these strategies may impact your effectiveness as a professional in your chosen area of occupation, either through coursework or practicum experience as outlined by the course instructor.

Grading Policy

Please understand that this is a required course for the PTA program in order to prepare you to enter you're your first clinical rotation. Quality work and active participation is expected and not to be negotiated. Any written assignments or tests will be graded outside of class. You can expect feedback on assignments within a week's time.

Grade Inquiry Policy

It is the responsibility of the individual taking this course to maintain accurate track of assignment submissions and grades. There will be opportunities during the semester to meet with the instructor to discuss your academic progress. Contact the instructor to schedule an appointment. Class time will not be used for grade inquiries. All grades are final.

Communication Plan

The best way to communicate with the course instructor is via email. Also, check in Blackboard regularly for announcements, including any changes in the course schedule due to instructor illness or conference attendance. Appointments with the instructor may also be scheduled.

General Course Requirements

1. Attend class and participate.
2. Contribute and cooperate with civility.
3. **Submit assignments on time. Late work will be deducted 5% per day late. Medical and/or family circumstances that warrant an extension on assignments need to be presented to the instructor. Extensions will be allowed at the instructor's discretion.**

Grading Scale:

- "A" = 90-100
"B" = 80-89
"C" = 70-79
"D" = 60-69
"F" = 0-59

Students must make a minimum of a C in each PTA course in order to remain in the program.

Incomplete Policy

An 'Incomplete' grade may be given only if:

1. The student has passed all completed work
2. If he/she has completed a minimum of 75% of the required coursework. A grade of an "I" will only be assigned when the conditions for completions have been discussed and agreed upon by the instructor and the student.

Overview of assignments

Type of Assignment	Percentage
1. Blackboard Assignments	10%
2. Lab Check-offs/ Practicals	10%
3. Quizzes	5%
4. Unit Tests	50%
5. Final Exam	25%

Missing an Exam:

Exams are defined as formally scheduled examinations covering a major portion of the course content and cumulatively comprising a relatively large percentage of the overall grade for a course. Every effort should be made by the student to be present for all exams. If it is necessary for a student to miss an exam, the instructor must be notified prior to the scheduled exam time and arrangements must be made for make-up. It is the instructor's option to give the same exam as the one missed or a different exam over the same content. If the exam is not made up within one class day, a 5% per day penalty will be assessed each day the exam is not taken.

Quizzes:

Announced quizzes over indications, contraindications, and precautions for selected physical agents will be given at the beginning of class. Dates can be found on the course schedule. The lowest quiz grade will be dropped and the remaining quiz grades will be averaged for a total of 10% of the final grade. **Missed quizzes cannot be made up.** If one quiz is missed, it will be the grade that is dropped before averaging. If more than one is missed, zeroes will be recorded and averaged with the other quiz grades.

OC Blackboard Assignments:

Students will be required to log on to Blackboard weekly, and complete discussion questions, group projects, and documentation assignments in designated modules. Detailed instructions will be provided in class. Expect 24 hour turn around for answers to questions regarding Bb assignments via email. (HINT: Don't wait until the last minute to complete the assignment.) Blackboard assignments and projects will be averaged for a total of 10% of the final grade.

Service Learning Project

Requires active participation as deemed by instructor in Massage Clinic at date to be determined. As evidence of learning, student will submit posts through a discussion board on Blackboard.

SEI will be from 4/28/13 through 5/4/13