

Course Syllabus

LEVELLAND CAMPUS

COURSE: PTHA 1431 Biophysical Agents (BPA) (3:3:3)

SEMESTER: Fall

CLASS DAYS: Monday & Wednesday CLASS TIMES: 9:00AM-4:00PM

INSTRUCTOR INFOMATION

Name	Phone Number	Email	Office	Office Hours
Kevin Beaugh	(806) 716-2518	kbeaugh@southplainscollege.edu	AH 103F	As Posted

"South Plains College improves each student's life."

GENERAL COURSE INFORMATION

*It is the responsibility of each student to be familiar with the content and requirements listed in the course syllabus. *

COURSE DESCRIPTION

This course includes a detailed study of the knowledge and skills necessary to reach competence in using biophysical agents in the provision of physical therapy treatment.

PREREQUISITE COURSES: PTHA 1301, PTHA 1405, PTHA 1413, PTHA 1321, PTHA 2409

PARTICIPATION

This course is a student-centered class which consists largely of learning and practicing skills in lab and providing peer review of each others' practice. I believe you will gain a solid understanding of the learning objectives by participating in these activities. Your unique perspective and ideas are valuable and might bring to the conversation something nobody else has considered (including me). Many opportunities have been provided for individual students to participate. Everyone is expected to challenge themselves to participate fully and constructively. If this represents a concern for you for any reason, please reach out and we'll find a way to get you involved. I will do my best to create a welcoming space for your good ideas and questions to be heard.

STUDENT LEARNING OUTCOMES

Upon successful completion of the course, following a given plan of care and under the supervision of the PT, the student will have the cognitive, psychomotor, and affective competencies to:

- 1. Synthesize the indications, contraindications, precautions, and physiological response related to
 - a. Thermal agents (cold packs, ice massage, hot packs, paraffin bath)
 - b. Soft tissue mobilization techniques (effleurage, petrissage, tapotement, trigger point release, transverse friction massage, myofascial release techniques, retrograde massage, scar tissue mobilization)
 - c. Traction (manual (cervical), mechanical (cervical and lumbar))
 - d. Ultrasound
 - e. Electrotherapy (neuromuscular electrical stimulation, transcutaneous electrical nerve stimulation, interferential current, biofeedback)
- 2. Demonstrate safe and competent application that meets requirements outlined in the skill check-off and clinical readiness assessment of the above-listed biophysical agents.
- 3. Design and justify a treatment session based on case scenarios that appropriately includes:
 - a. the biophysical agents listed above
 - b. airway clearance techniques
 - c. compression (intermittent pneumatic compression and cold compression)
 - d. phonophoresis and iontophoresis
 - e. hydrotherapy (including contrast bath)
 - f. electromagnetic radiation agents (infrared, ultraviolet, diathermy, LASER)
- 4. Select, justify, and competently perform appropriate data collection techniques to determine the patient's response(s) to the intervention applied (as related to biophysical agents listed in Outcome #1).
- 5. Demonstrate generic abilities related to course content. (Generic Abilities adapted from the Physical Therapy Program, University of Wisconsin-Madison, May et al. Journal of Physical Therapy Education, 9:1, Spring, 1995.)
 - a. Commitment to Learning Demonstrate the ability to self-assess, self-correct, and self-direct. Identify needs and sources of learning. Seek new knowledge and understanding.
 - b. Use of Constructive Feedback Demonstrate the ability to identify sources and seek out feedback and to effectively use and provide feedback for improving personal interaction.

- 6. Based on case scenarios indicating the need for various biophysical agents, integrate the following basic concepts presented in the APTA Guide to Physical Therapist Practice:
 - a. Identify and perform applicable physical therapy tests and measures
 - b. Understand applicable clinical practice guidelines
 - c. Understand applicable intervention goals
 - d. Infer and perform applicable education and procedural intervention
- 7. Use a SOAP note format to document interventions provided and data gathered related to those interventions.

OUTCOME ASSESSMENT METHODS

Computer-based exams, written assignments, quizzes, clinical readiness assessments, and other assignments and projects as assigned.

FORMATIVE ASSESSMENTS

- Lab participation
- Reading and Viewing Quizzes
- Skills Check-offs
- Clinical Readiness Assessment

SUMMATIVE ASSESSMENTS

Written exams

GRADING FORMULA

Quiz Totals	Average of all Quizzes		15%
Written Exam Totals	Average of Written Exams		75%
Professionalism	Score based on Professionalism Rubric		10%
		Total	100%

Percentage	Grade
90-100%	A
80-89%	В
75-79%	C
74.9% and Below	F

GRADING POLICY

Students who fall below 75% passing requirements will not be allowed to continue in the PTA program.

If the student's grade in the class falls BELOW 77% at any point in the semester, the student will contact the course instructor to discuss the student's improvement plan, to be documented on the student's learning contract. The student will be responsible for performing all established interventions, communicating this performance to the course instructor, and meeting all established goals.

ASSIGNMENT POLICY

All assignments must be completed by the assigned due date and time (as listed in Central Standard Time on the class schedule). Students should contact faculty prior to the due date and time if they anticipate material will be late. Late and/or incomplete work may be accepted, but with grade deduction per day up to 3 days, after which a grade of zero will be recorded. Assignments, quizzes, exams, and skills checks missed due to an absence will be made up promptly as arranged by student. Please note contacting faculty will not guarantee the receipt of an extension for the assignment. Please allow enough time for preparation and submission of each assignment prior to the scheduled due date to avoid issues with technology. Failure to complete any assignment by due date will result in professionalism point deductions on final grade. Assignments must be uploaded to BlackBoard Ultra as a Word Doc or PDF and labeled with assignment title and student name.

ASSESSMENTS PLANNED (BUT NOT LIMITED TO):

- 1. Written Exams, including a Comprehensive Final Written Exam
- 2. Midterm and Final Clinical Readiness Assessments
- 3. Quizzes

EXAMS POLICY

The written exams will be administered via computer to prepare students for the NPTE-PTA exam. Additionally, many exam questions will be constructed in the same manner as NPTE-PTA, allowing students to prepare for the licensure testing format. Possible pop quizzes may be handwritten which will encourage memory and mastery of the material.

- All summative assessments will be proctored by SPC Faculty/Staff
- ❖ Personal belongings are not allowed in the testing area during testing.
- Pencils and scratch paper will be issued to students prior to exam. These items must be returned prior to exiting testing area.
- Cell phones and/or smart watches are not allowed in the testing area during testing.

- **Students must adhere to classroom rules.**
- Hats or hoodies may not be worn.
- ❖ Talking will not be permitted; questions will be answered by an instructor.
- Any action interpreted as cheating by facilitating instructor may result in immediate removal from testing area, a zero recorded for the test grade and possible removal from SPC PTA Program.

SPC CAMPUS STATEMENTS

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title V Pregnancy Accommodations, CARE Team, and Campus Concealed Carry, please visit: https://www.southplainscollege.edu/syllabusstatements/

STUDENT CONDUCT

Academic Integrity

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

- ❖ Cheating Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.
- ❖ Plagiarism Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.
- ❖ Complete honesty is required throughout all aspects of coursework, including quizzes, final examinations, and any assignment/work used to assess knowledge and skill. Any assessment receiving a score of 0 or F due to cheating may result in the student being dropped from the course.

Class/Lab Attendance Policy

Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus.

- When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first-class meeting.
- ❖ Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.
- It is the student's responsibility to verify administrative drops for excessive absences through Texan Connect using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

 http://catalog.southplainscollege.edu/content.php?catoid=47&navoid=1229#Class Attendance
- Absence-
 - ❖ If student misses more than 30 minutes of scheduled class time the student will be counted absent.
 - Excessive Absences: Three absences are considered excessive (with counseling after 2nd absence)
 - Tardy
 - o any time after class starts or returns from break. Notification prior to official class time will be considered on an individual basis.
 - o 2 tardies = 1 absence
 - Any absence from class should be reported to the instructor in advance whenever possible, or as soon as possible after the absence. This allows instructors to adjust scheduled class activities, provide necessary support, and address any missed coursework.

CLINICAL SKILLS

- You may not apply clinical skills you are learning to the general public because you are a student PTA and are learning physical therapy techniques.
- You will be practicing these skills on each other when you are in lab under the instructor's supervision.
- ❖ If you are presently working in a clinic as a tech, you <u>cannot</u> practice these skills on patients.
- Once you have passed the class, you <u>still cannot</u> practice the acquired skills in a clinic except during official clinical experiences.
- **You** will only be permitted to apply these skills to the general public under a clinical instructor's supervision once you begin your clinical experiences.

Additionally, enrollment in this course does not guarantee a passing grade, successful completion of the PTA curriculum, or licensure

COMMUNICATION

Electronic communication between the instructor and students in this course will utilize the South Plains College "My SPC" and email systems. Text messaging may also be used for communication. The instructor will not initiate communication using private email accounts. Students are encouraged to check their SPC email on a regular basis, ideally daily, and respond to emails and text messages promptly, within 24 hours. Students will have access to assignments, web links, handouts, and other vital course material delivered via BlackBoard and other electronic means.

- ❖ In the event that any student encounters difficulties accessing the BlackBoard or their email, they should promptly contact the instructor for guidance. The instructor is committed to working with students to ensure they have access to the necessary class content located on the course website and other electronic platforms.
- This policy aims to facilitate effective and efficient communication between the instructor and students, promoting a seamless learning experience.
- ❖ If experiencing technical issues, the student can contact the Help Desk by calling 806-716-2600

EMAIL

Students are required to use their official South Plains College (SPC) email addresses for all college-related communications. Official SPC email addresses are provided to each student upon enrollment and are the primary means of communication between students, faculty, and the college.

Email Etiquette:

o Students are expected to maintain a professional and respectful tone in all email communications with faculty, staff, and fellow students. Offensive, disrespectful, or inappropriate language in emails is strictly prohibited.

Email Security:

Students should take steps to protect their email accounts. This includes using strong, unique passwords and not sharing email login credentials. If students suspect their email accounts have been compromised, they should report it immediately to the college's IT department.

Check Email Regularly:

 Students are encouraged to check their official SPC email accounts regularly. Important announcements, updates, and notices from instructors, administrative departments, and the college as a whole are communicated through these accounts.

❖ SPC Alerts:

Students are automatically enrolled in SPC Alerts, which is an emergency notification system. Students are encouraged to ensure their contact information is up to date in SPC Alerts to receive important safety and emergency notifications.

Email Support:

o If students encounter technical issues with their SPC email accounts or need assistance with email-related concerns, they should contact the college's IT support services for assistance. A social media policy for health sciences students should help students understand the responsible and professional use of social media platforms, especially given the sensitive nature of healthcare and patient information. Here is a sample social media policy for health sciences students:

PATIENT CONFIDENTIALITY:

Students must uphold the highest standards of patient confidentiality. Do not discuss specific patients, cases, or share any patient-related information on social media platforms, even if patient names or identifiers are not disclosed. Be cautious about sharing any content that might indirectly reveal patient information, such as photos or stories taken in clinical settings.

SOCIAL MEDIA

The PTA program has a Facebook page at https://www.facebook.com/South-Plains-College-PTA-270314052992426/?ref=bookmarks In addition to the South Plains College website; this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains College announcements and will help with program recruitment. "Liking" the South Plains College PTA Facebook page is not mandatory, nor are personal Facebook accounts, in order to access this page.

Clinical site and patient information should not be shared on any social media platform. Sharing this information can lead to dismissal from the PTA Program.

CELL PHONE/SMART WATCHES

- Cellphones must be put away and turned OFF or put on silent during scheduled class/lab periods unless prior approval has been given by the instructor. Cell phones are to be used outside of the classroom while class is in session. This includes text messaging and internet browsing.
- Students will be dismissed from class/lab and sent home if a phone continuously rings/vibrates or if the student is discovered texting or browsing the internet. If dismissed from class, the student will receive an **absence** for the day.
- ❖ EMERGENCY MESSAGES: In the event of an emergency during normal class schedule, the student should notify their family to call the Nursing Office at (806) 716-2391 or (806) 716-2193. Class will not be interrupted unless it is an emergency, so the family members must identify themselves and state that it is an emergency to get immediate action.
- For emergencies during clinical rotations, the student should notify their family to call and leave a message or text (identifying who they are and who they need to get in touch with for an emergency) to the number or numbers provided in the clinical course syllabus and/or on the clinical course schedule.

RESOURCES

TEXBOOK

This course is part of your TexBook program, which means you don't need to purchase a textbook or access code for this course. TexBook already contains the required eBook for your course, and is provided for you via the Bibliu platform from Day 1 of class.

- Cost of TexBook: this required content is provided as part of a Program called 'Inclusive Access', which means that content is provided for you at the lowest price available from the publisher. The cost for this is included in your tuition.
- How to access your digital content via Bibliu: you can access your material via the Bibliu link inside your Blackboard Course, or directly via the Bibliu app. If you have issues with this, please contact the Bookstore Manager or Bibliu Support (see below).
- The Bibliu platform: you can use the Bibliu platform to enhance your learning experience, with features including: highlighting, notes and reading text aloud. For more details and support on how to use Bibliu, please visit the Bibliu support visit the Bibliu suppo
- Opting out: you can opt-out of the TexBook Program, up until the opt-out deadline, via the banner displayed when you open the Bibliu platform. Remember that opt-out deadlines vary by term, and if you choose to opt-out you will lose access to this low price option, and will need to purchase the content through a different method. If you opt-out, the fee will be refunded to your account.
- Useful contacts:
 - o Bookstore Manager: Christian Bruno christian.bruno@bibliu.com
 - o Bookstore Text Coordinator: Trish Wells patricia.wells@bibliu.com
 - o Bibliu Support: email support@bibliu.com

TEXTBOOK

Biophysical Agents: Theory and Practice (4th Edition); Behrens/Beinert; ISBN 978-0-8036-7667-1

COURSE SUPPLIES

- PTA Kit
- ❖ CPR Certification-**The CPR Certification must be from AHA and valid through May 2025.
- Minimum of 1 Program Polo, slacks and close toed shoes
- ❖ Lab clothes- Shorts with at least a 7-in. inseam, tee shirt
- Technology and access to internet

WEDX	DATE		TOPICS	READINGS	QUIZZES
		Mon.	Evidence-Based Practice &	Chapters 1 & 17	Acknowledgement Quiz
WEEKS 1-3	iri	Aug.	Clinical Decision-Making	CDM Ch. 1 (from PTHA 1301)	DUE Sunday, September 1st by 11:59P
	Online Prep during Clinical I	26 th	Tissue Response	Chapters 2 & 15	, , , , , , , , , , , , , , , , , , , ,
	e Pr Clini	to Fri.	Tissue Repair	Chapter 2 & 3	
>	ië (Sept.		Patho Chapter 7	
	0	13 th	Pertinent Assessments	Chapter 3	
	Monday		9A: Introduction to PTHA 1431	PTHA 1431 Course	
			12P : Guest Lecturer Spencer	Syllabus	
	Sept.	16 th	McCombs, DPT (Pain and Emotion)		
	(9A-	4P)	1P : Assessment Lab		
*			3P : Exam 1 Day 1		
WEEK 4			9A : Exam 1 Day 2	Chapter 4	Thermal Agents Reading Quiz
>	Wedne	ordov.	10:30A : Thermal Agents		DUE Tuesday, Sept. 17 th by 11:59P
	Sept.	•	(Superficial Heat & Cold		Thermal Agents Viewing Quiz
	(9A-		Modalities) Day 1		DUE Tuesday, Sept. 17 th by 11:59P
		-	11:15A : Guest Lecturer John Cole, PTA (Extrinsic Pain Factors)		
\vdash			9A : Guest Lecturer Clarice Long.		
	Mon		DPT (More Pain Science)		
	Sept.		Thermal Agents Day 2 : Skills		
WEEK 5	(9A-	4P)	Check-Off		
¥	Wada		Soft Tissue Management	Chapter 7	Traction Reading Quiz
-	Wedne		(Traction) Day 1		DUE Tuesday, Sept. 24th by 11:59P
	Sept. 25 th (9A-4P)				Traction Viewing Quiz
\vdash			Soft Tissue Management	Chapter 9	DUE Tuesday, Sep. 24th by 11:59P Manual Therapy Reading Quiz
			(Manual Therapy) Day 1	Chapter 5	DUE Sunday, Sept. 29 th by 11:59P
	Mon	_	with guest lab instructors : Clarice Long, DPT		Manual Therapy Viewing Quiz
Lo Lo	Sept. (9A-		(9A-12noon), Spencer McCombs, DPT (cervical/lumbar series) (12P-1P), Hannah		DUE Sunday, Sept. 29th by 11:59P
WEEK 6	(34.		(cupping, KT) (12P-1P), Bella Martinez, PTA		
WE			(TrP dry needling) (12P-1P) Soft Tissue Management		
	Wedne		(Manual Therapy) Day 2		
	Oct.	_	with guest lab instructors : Melodi Reeder,		
	(9A-	4P)	DPT, Madison Lynskey, PTA, Jeremiah Lima, PTA (9A-4P)		
			Soft Tissue Management		
	Monday Oct. 7 th		(Manual Therapy) Day 3 : Skills		
			Check-Off with guest lab instructors : Spencer		
	(9A-		McCombs, DPT (cervical/lumbar series) (12P-		
_			1P), Hannah (cupping, KT) (12P-1P), Bella Martinez, PTA (TrP dry needling) (12P-1P)		
WEEK 7			Thermal Agents & Compression	Edema Management	Compression Reading Quiz
WE			(GameReadys, IPC, Contrast	Chapter 8	DUE Tuesday, Oct. 8th by 11:59P
	Wedne		Bath)	PTCH p.63, 122	Hydrotherapy Reading Quiz DUE Tuesday, Oct. 8th by 11:59P
	Oct. 9 th (9A-4P)		3P : Exam 2 Day 1		Compression Viewing Quiz
				Hydrotherapy Chapter 6	DUE Tuesday, Oct. 8th by 11:59P
				PTCH p.61, 62, 118, 121	Performance Improvement (Midterm)
			9A : Midterm CRA and Traction	1.101 p.01, 02, 110, 121	DUE Friday, Oct. 11 th by 11:59P
WEEK 8	Mon		Check-offs		
VEE .	Oct.		2:30P : Exam 2 Day 2		
>	(9A-	42)			

READINGS: "Chapter XX": Biophysical Agents text Patho: Pathophysiology text

PTHA 1431 Biophysical Agents

WEEK	DATE	TOPICS	READING	QUIZZES
WEEK 8		Therapeutic Ultrasound Day 1	Chapter 5	Ultrasound Reading Quiz
	Wednesday			DUE Tuesday, October 15th by 11:59P
	Oct. 16th			Ultrasound Viewing Quiz
				DUE Tuesday, October 15th by 11:59P
WEEK 9	Monday	Therapeutic Ultrasound Day 2		
	Oct. 21st	(Skills Check-Off)		
	Waterday	Elec. Stim. (for Muscles) Day 1	Chapters 11-13	E-Stim Reading Quiz
3	Wednesday	 NMES/FES 		DUE Tuesday, October 22nd by 11:59P
	Oct. 23 rd	 Biofeedback 		NMES Reading Quiz
		Electrical Stimulation (for Muscles)	1	DUE Tuesday, October 22nd by 11:59P
	Monday Oct. 28 th	Day 2 : Skills Check-Off		NMES Viewing Quiz
1 2	Oct. 28"	NMES Practice/Race		DUE Tuesday, October 22nd by 11:59P
WEEK 10		Electrical Stim. (for Pain) Day 1	Chapters 15 & 16	TENS & IFC Reading Quiz
3	Wednesday	TENS		DUE Tuesday, October 29th by 11:59P
	Oct. 30 th	IFC		TENS Viewing Quiz
	Monday	Electrical Stimulation (for Pain)		DUE Tuesday, October 29th by 11:59P
		Day 2 : Skills Check-Off		
		Electrical Stimulation (for Tissue	ESTR	ESTR Reading Quiz
_		Repair) & EMR (Diathermy, UV,	Chapters 14	DUE Tuesday, Nov. 5 th by 11:59P
WEEK 11		LASER)	PTCH p.63, 64, 123, 124	EMR Reading Quiz
	Wednesday		, , , , , , , , , , , , , , , , , , , ,	DUE Tuesday, Nov. 5 th by 11:59P
≥	Nov. 6 th		EMR	ESTR Viewing Quiz
			Chapter 10	DUE Tuesday, Nov. 5 th by 11:59P
			PTCH p.62, 119, 120	EMR Viewing Quiz
			,,,,	DUE Tuesday, Nov. 5 th by 11:59P
	Monday	Mock Fall CRA		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
12		3P : Exam 3 Day 1		
WEEK 12		9A : Exam 3 Day 2		
WE	Wednesday	10:30A : Fall CRA & Final Exam		
-	Monday Nov. 18 th	Review Day 1 (Review Outline)		
		Fall CRA & Final Exam Review Day		
		b		
WEEK 13		(CDM Practice Cases)		
		Fall CRA & Final Exam Review Day		
≥	Wednesday Nov. 20 th	3 (Scenario-Based BPA Tx Planning		
		and Performance)		
		Final Fall CRA & Final Exam Prep Da	v	Performance Improvement (Fall CRA)
3	Monday Nov. 25 th	Record and upload 2 Pl vide	•	• 2 Pl submissions due 11/25 by 11:59P
EK 14				• 2 Pl reviews due 11/28 by 11:59P
WE	Wednesday	THANKSGIVING HOLIDAY		• Review feedback on both your Pls by 12/1
5	Nov. 27 th			11:59P
		Final Final Fall CRA & Final Exam Pro	en Dav	FALL CRA TUES., DEC. 3 rd 9A-4P
15	wionday	The rain of the control of the control	CP 241	THE OWN TOLON DECIS STATE
WEEK 15	Dec. 2 nd			
WE	Wednesday	NO CLASS		1
	Dec. 4 th			
J	Monday	Final Written Exam 9A-11A		Clinical Acknowledgements
¥ 98	Dec. 9th			DUE Sunday, December 10 th by 11:59P
	500.5			

READINGS: "Chapter XX": Biophysical Agents text Patho: Pathophysiology text