Course Description
PTH 228 Manual Therapy Techniques
This course introduces principles and basic techniques of manual therapy.
Prerequisites: PTH 240, PTH 242, PTH 252.
Corequisites: PTH 115, PTH 235, PTH 246, PTH 253.
2 Cr (1 lect/pres, 1 lab, 0 other)

Course Focus
This course introduces the theory and describes the techniques of joint mobilization for the extremities.
Soft tissue mobilization and cardiopulmonary physical therapy techniques and are presented and practiced. Orthopedic management of the spine is presented and practiced within the context of the plan of care as developed by a licensed physical therapist. Concepts related to posture and postural awareness are presented.

Text and References
Bandy, W. D. and Sanders, B. Therapeutic Exercise for the Physical Therapist Assistant, 2nd Ed. Baltimore, MD; Lippincott, Williams, and Wilkins; 2008.


O’Sullivan, S. and Schmitz, T. Physical Rehabilitation, 5th Ed. FA Davis; 207.

Starkey C. Therapeutic Modalities. F.A. Davis; 2004.
Course Objectives/Learning Objectives
At the completion of this course, students will be able to:
1. Explain concepts related to lymphedema management.
2. Identify capsular patterns of the shoulder, elbow, wrist, hip, knee and ankle joints.
3. Demonstrate the ability to perform the following patient data collection techniques:
   a. Manual muscle testing procedures for the trunk
   b. Range of motion of the spine
4. Examine the scientific basis for and demonstrate the use of the following intervention techniques:
   a. Soft Tissue Mobilization
   b. Peripheral Joint Traction & Gliding
   c. Mechanical and Manual Traction
   d. Compression therapy
   e. Core strengthening exercises
   f. Postural Awareness
   g. Stretching techniques for the spine
   h. Chest physical therapy techniques
5. Implement components of a plan of care developed for patients with various spinal disorders.
6. Participate in professional reading through preparation of a journal article review to emphasize the importance of lifelong learning within the physical therapy profession.

Course Goals
The following list of course goals will be addressed in the course. (*designates a CRUCIAL goal)
1. explain spinal traction physiological effects
2. identify spinal traction (contra)indications*
3. operate mechanical cervical traction equipment*
4. operate mechanical lumbar traction equipment*
5. define joint mobilization grades
6. define joint mobilization terms
7. identify joint mobilization (contra)indications*
8. detect joint end-feels
9. recognize peripheral joint capsular patterns
10. perform peripheral joint traction techniques
11. define massage terms
12. describe massage strokes
13. explain massage physiological responses
14. formulate integrated manual therapy interventions
15. demonstrate soft tissue mobilization
16. explain lymphedema physiology
17. describe lymphedema stages
18. demonstrate compression bandaging
19. perform neck and trunk MMT
20. State normal trunk ROM values
21. measure trunk ROM
22. demonstrate core exercise techniques
23. analyze core strengthening programs
24. explain peripheral joint mobilization concepts
25. apply peripheral joint mobilization concepts
26. recognize PTA joint mobilization role
27. define spinal physical therapy terms
28. describe common spinal injuries/pathologies
29. explain spinal rehabilitation concepts
30. identify core exercise technique indications/contraindications *
31. describe normal postural alignment
32. observe abnormal postural alignment
33. apply postural and spinal stabilization principles
34. explain spinal traction therapeutic effects
35. perform safe, effective manual cervical traction
36. monitor spinal traction patient responses
37. identify soft tissue mobilization indications/contraindications*
38. explain compression therapy principles
39. explain mechanical compression therapeutic effects
40. identify compression therapy contraindications/indications*
41. define chest physical therapy terms
42. identify chest physical therapy indications/contraindications *
43. explain chest physical therapy therapeutic responses
44. demonstrate chest physical therapy techniques
45. instruct classmates in breathing exercises
46. appreciate limited ventilation psychological implications
47. observe limited spinal motion adaptations

Student Contributions Laboratory Requirements
Each student is required to actively participate in laboratory sessions by practicing the application of various skills on fellow classmates. Appropriate and professional behavior is expected at all times in the laboratory setting. Shorts and a T-shirt are the required attire for all laboratory activities. A sweatshirt or sweatpants may be worn over these if such clothing does not interfere with the laboratory activities. Clothing must allow access to various parts of the body during specified laboratory activities. Classes are designed to employ a variety of teaching techniques. In order to maximize learning, required readings and Web enhanced sections should be done prior to class. If a student is falling behind in clinical performance and/or academic achievement, it is imperative to seek immediate assistance from the instructor.

Course Grade Criteria

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>300</td>
</tr>
<tr>
<td>Cumulative Final Exam</td>
<td>400</td>
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<tr>
<td>Massage Skills Check</td>
<td>50</td>
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<tr>
<td>Traction Skills Check</td>
<td>50</td>
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<tr>
<td>COPD Simulator Homework</td>
<td>50</td>
</tr>
<tr>
<td>Article Review Presentation</td>
<td>100</td>
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<tr>
<td>Article Review Synopsis</td>
<td>50</td>
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<tr>
<td>Total Points</td>
<td>1000</td>
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Course Schedule
Lecture Schedule: 10:30 – 12:00 W; Lab Schedule: 1:00 – 4:30 W
The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

ATTENDANCE

1. The College’s statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

2. Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.

3. Students taking an online/internet class must sign in and communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.

4. Reinstatement requires the signature of the division dean.
   a. In the event it becomes necessary for a student to withdraw from the course OR if a student stops attending class, it is the student's responsibility to initiate and complete the necessary paperwork. Withdrawing from class may have consequences associated with financial aid and time to completion.

   b. When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor MUST withdrawal the student with a grade of “W”, “WP”, or “WF” depending on the date the student exceeded the allowed absences and the student’s progress up to the last date of attendance or

   c. under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

   d. Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.

5. A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.

6. Students are expected to be in class on time. Arrival to class after the scheduled start time or leaving class prior to dismissal counts as a tardy. Three tardies and/or early departures are considered as one absence unless stated otherwise.

7. It is the student’s responsibility to sign the roll/verify attendance with instructor upon entering the classroom. Failure to sign the roll/verify attendance results in a recorded absence. In the event of tardiness, it is the student’s responsibility to insure that attendance is marked. The student is responsible for all material/announcements presented, whether present or absent.

8. Continuity of classroom and laboratory (which includes clinical experiences) is essential to the student’s progress in providing safe and competent patient care. Students are expected to use appropriate judgment for participating in clinical activities. To evaluate the student’s knowledge and skills, it is necessary for the student to be present for all clinical experiences. If absence does occur, the designated clinical site, in addition to the Division of Health Sciences Administrative Assistant, must be notified by telephone no later than 30 minutes prior to the start of the clinical experience. The Division of Health Sciences telephone number is 843-525-8267.
A copy of TCL’s STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL) is on file in the Division Office and in the Learning Resources Center.

HAZARDOUS WEATHER
In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVV 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. [www.tcl.edu/textalert.asp](http://www.tcl.edu/textalert.asp)

ACADEMIC MISCONDUCT
There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship. It is the student’s responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the TCL Student Handbook, the Division Office, and the Learning Resources Center.

Health care professionals hold the public trust. Academic misconduct by health science students calls that trust into question and academic integrity is expected.

It is a fundamental requirement that any work presented by students will be their own. Examples of academic misconduct include (but are not limited to):

1. copying the work of another student or allowing another student to copy working papers, printed output, electronic files, quizzes, tests, or assignments.
2. completing the work of another student or allowing another student to complete or contribute to working papers, printed output, electronic files, quizzes, tests, or assignments.
3. viewing another student’s computer screen during a quiz or examination.
4. talking or communicating with another student during a test.
5. violating procedures prescribed by the instructor to protect the integrity of a quiz, test, or assignment.
6. plagiarism in any form, including, but not limited to: copying/pasting from a website, textbook, previously submitted student work, or any instructor-prepared class material; obvious violation of any copyright-protected materials.
7. knowingly aiding a person involved in academic misconduct.
8. providing false information to staff and/or faculty.
9. entering an office unaccompanied by faculty or staff.
10. misuse of electronic devices.

<table>
<thead>
<tr>
<th>GRADING POLICY</th>
<th>Grading scale</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>82% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>75% - 81%</td>
<td>C</td>
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<tr>
<td>70% - 74%</td>
<td>D</td>
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<tr>
<td>Below 70%</td>
<td>F</td>
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<tr>
<td>W</td>
<td>withdraw</td>
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<tr>
<td>WP</td>
<td>withdraw with passing grade</td>
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<tr>
<td>WF</td>
<td>withdraw with failing grade</td>
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<tr>
<td>I</td>
<td>Incomplete</td>
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Approved MSapp 8-6-12
Grading Methodology. The final grade must be 75.000 or more in order to pass the course and progress in the program. In addition, each student must pass the final exam with a grade of 75.00 or above. If a student fails the final exam a second attempt will be given. The highest grade a student can achieve on a second attempt of the final exam is 75.00, however the final course grade will be calculated based on the first attempt score. Each student must also demonstrate safety and competence in required laboratory skills. Each student will be given three attempts to demonstrate his/her safety and competency in each required laboratory skill. If the student does not pass a skill on the third attempt, that is grounds for failure in the course.

Students absent from an examination or presentation will receive a “0” grade for the examination unless other arrangements are made with the individual instructor prior to the examination or presentation day or on the examination or presentation day before the test/presentation is scheduled to be given. It is the responsibility of the student to contact the appropriate instructor to arrange to make up the examination. Arrangements may be completed by telephone. If the instructor is not available, a message should be left on the instructor’s voice mail AND with another member of the faculty or administrative assistant. The instructor will decide the time and method of make-up examinations on an individual basis. Messages sent by other students are unacceptable. The student is responsible for notifying the instructor of the reason for the absence. Grades are posted on Blackboard within two days of administration of tests and quizzes.

Course Coordinator: Cindy Buchanan, PhD, PT
Telephone Number: 843-525-8230
Office Hours: By Appointment
Email: cbuchanan@tcl.edu
Adjunct Faculty: Kevin Green, PTA, MLDT-CDT, ARS
# Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Lab</th>
<th>Readings</th>
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<tbody>
<tr>
<td>8/22</td>
<td>Peripheral Joint Mobilization</td>
<td>Joint Mobilization Worksheet</td>
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<tr>
<td>8/29</td>
<td>Peripheral Joint Mobilization</td>
<td>Joint Traction &amp; Glides</td>
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<tr>
<td>9/5</td>
<td>Spinal Traction</td>
<td>Manual &amp; Mechanical Traction</td>
<td>Starkey, Ch. 17</td>
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<tr>
<td>9/12</td>
<td>Management of Spinal Disorders</td>
<td>Trunk Exercises</td>
<td>Dutton, Ch. 13, 14, 15</td>
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<td>Bandy, Ch. 14</td>
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<tr>
<td>9/19</td>
<td>Management of Spinal Disorders</td>
<td>Muscle Testing of the Trunk</td>
<td>Dutton, Ch. 13, 14, 15</td>
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<td></td>
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<td>Goniometry of the Spine</td>
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<td>Trunk Exercises</td>
<td>Bandy, Ch. 14</td>
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<tr>
<td>9/26</td>
<td>Posture</td>
<td>Postural Assessment</td>
<td>Dutton, Ch. 25</td>
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<tr>
<td>10/3</td>
<td><strong>Midterm Exam</strong></td>
<td>Traction Skill Checks</td>
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<tr>
<td>10/10</td>
<td>Soft Tissue Manipulation</td>
<td>Superficial Massage Techniques</td>
<td>Starkey, Ch. 16, 16</td>
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<td></td>
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<td>Muscolino, Ch. 3, 4</td>
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<tr>
<td>10/17</td>
<td>Lymphedema Management</td>
<td>Decongestive Therapy</td>
<td>Starkey, Ch. 14</td>
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<td>10/24</td>
<td>Neuromuscular and Connective</td>
<td>Neuromuscular and Connective</td>
<td>Muscolino, Ch. 5</td>
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<td>Tissue Techniques</td>
<td>Tissue Techniques</td>
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<tr>
<td>10/31</td>
<td>Chest Physical Therapy</td>
<td>Chest Physical Therapy</td>
<td>O’ Sullivan, Ch. 15</td>
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<td>Bandy, Ch. 13</td>
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<td>11/7</td>
<td><strong>Final Exam</strong></td>
<td>Massage Skills Check</td>
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<td><strong>Final Exam</strong></td>
<td><strong>Massage Skills Check</strong></td>
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</table>
Skills Check List

Traction
- Lumbar (mechanical)
- Cervical (mechanical)
- Cervical (manual)

Soft Tissue Mobilization
- Effleurage
  - Superficial
  - Deep
- Petrisagge
  - Single kneading
  - Double kneading
  - Lifting
- Friction
  - Cross-fiber
  - Circular
- Tapotement
  - Clapping
  - Cupping
  - Hacking
  - Pounding
- Myofascial
  - J-stroke