

## **COLLABORATIVE/PROBLEM BASED CLINICAL EDUCATION**

### **Learning Units**

#### **Introduction**

Health care continues to evolve at a very rapid pace. No longer can therapists consider themselves to be sole practitioners. As all patients/clients who we see require different expertise, and different professions involved in their care, Concordia University and Marquette University have chosen to begin their Physical Therapist clinical education training with an experience designed to emphasize the case-management, decision-making, and collaborative responsibilities of the Physical Therapist.

CEE-1 I at Marquette University is an introductory clinical experience in any clinical practice setting intended to provide the student with as much problem solving and hands-on opportunities as appropriate to their level of academic preparation. It is intended to be an interactive experience that exposes the student to all aspects of patient care and management while applying the concepts of the learning unit model around the patient/client management model.

Ideally students are assigned to clinical facilities in groups of 2 or more. This model has, however, been used with traditional 1:1 experiences in cases where the clinical facility does not feel they could accommodate multiple students. Each student is assigned a small caseload of 1-2 patients each day for whom they have responsibility to complete the daily learning unit for that clinical day. When in a collaborative experience, students are expected to work as a group to solve the general problems of each daily learning unit, to personalize each daily learning unit to their specific patients/clients and patient/client needs, to be prepared for the clinical experience on a daily basis, and to participate as a colleague to assist in problem solving of other group members.

This is not a grading tool, but rather a guide and structure for the clinical experience. Students should be provided time in the clinic to complete requirements for daily learning units within the context of the clinic. However, it should be noted that not all resources are immediately available and consultation and research both in and outside of the clinical day is expected. Students should plan their time in and outside of the clinic accordingly. The grading tool used by Marquette University will be skills within the Clinical Performance Instrument consistent with their academic preparation.

#### **Learning Units**

1. Physical Therapy Evaluation - Pathophysiology
2. Alternative Discharge Options/Community Supports
3. Physical Therapy Examination - Subjective and Objective Components
4. Physical Therapy Evaluation - Assessment
5. Physical Therapy Evaluation - Treatment planning
6. Implementation and Progression of the Treatment Plan
7. Delegation
8. Documentation
9. Reimbursement and Cost of Care
10. Interprofessional Education
11. Pharmacology
12. Case Study

#### **Responsibilities of the Student**

The student assumes responsibility for completing the daily learning unit. The clinical instructor is a “guide on the side”, a facilitator, a resource and a mentor, but not responsible for supervising the work of the student(s) on the daily learning units. There is considerable independent time, and the student(s) is responsible for structuring the day such that all requirements for completing the daily learning units are met. When working with patients/clients, the student(s) recognizes that the clinical instructor is the primary care provider who delegates to the student(s) consistent with the students’ academic knowledge and experience.

Students remain responsible for completing the requirements as outlined by the grading tools used by their university. The learning units are designed such that students should meet all requirements of the clinical experience through completing the learning units.

As students will be using support materials that may be proprietary, students are expected to maintain confidentiality of records, and confidentiality of policies and procedures, unless otherwise approved by the clinical facility. No records are to leave the clinical facility without direct knowledge and consent of the clinical instructor.

While completing the clinical experience and learning units, numerous resources are available. In addition to the recommended resources identified for each learning unit, students should also consider course notes, journal articles, clinical guidelines, texts, (i.e., Rehab Specialist Handbook), videos, faculty (Faculty are available by phone or email, however, may or may not be immediately available. They should not be used as your primary source of information) and any other resources available within the clinical learning environment.

### **Responsibilities of the Clinical Instructor**

The clinical instructor should serve primarily as a resource for the daily learning units and assume primary responsibility for patient/client care provided by and with the student(s). The clinical instructor is to be familiar with their caseload, and with the individuals they delegate to students for completion of the daily learning units. The clinical instructor has the sole authority to determine which patients/clients are appropriate for student intervention and can withdraw a student from patient contact at any time.

The clinical instructor should be familiar with the daily learning units. Completion of the daily learning units is the responsibility of the student(s); the role of the clinical instructor is to provide guidance, support, and structure where needed. Clinical instructors should be available for mentorship and provide clear and concise feedback on the quality of the work produced by the student(s). The clinical instructor should also complete the designated grading tool(s) required by the university.

### **Responsibilities of the Academic Faculty and SCCE**

The SCCE should remain as the contact between the clinical facility, the student(s) and the university, and be available for training and questions as they arise. Should any questions arise, please contact the DCE immediately to have these resolved.

**LEARNING UNIT 1 - PHYSICAL THERAPY EVALUATION: PATHOPHYSIOLOGY**  
*Clinical Days 1-2*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will identify the pathophysiology of primary and secondary patient/client medical and/or physical therapy diagnoses and will determine the impact of those pathophysiology's on the efficacy of Physical Therapy care, patient/client safety, and in the clinical decision making process for the examination and evaluation of each patient/client.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor's caseload at the start of the clinical day. Students are to research the primary and secondary medical and/or physical therapy diagnoses of the assigned patients/clients. Using support materials students are expected to be able to report cause and general management of the pathophysiology, and given this information suggest the impact (i.e., restrictions, precautions, necessary physical therapy examination procedures) on the Physical Therapy examination and evaluation.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Verbalize restrictions and/or precautions to the provision of Physical Therapy care
- Identify necessary physical therapy examination procedures
- Be able to verbalize patient/client and/or caregiver educational needs
- Utilize a medical database to research and obtain one article about management of an identified pathophysiology

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Student(s) will provide a brief discussion of the findings to the CI at a time of their choosing.	Due at the end of the clinical day
Student(s) must provide a written summary of the information obtained on both patients/clients to the clinical instructor and DCEs.	Due at the start of the following clinical day
Student(s) will reference an evidenced based research article to support their findings along with the written summary.	Due at the start of the following clinical day

Time for Completion: Each student will be provided 1 patient/client per day and will repeat the unit for 2 consecutive days. The unit should assume Day 1 and Day 2 of the clinical experience.

Recommended Resources: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Clinical Instructors and Faculty.
- Medical databases via the internet (APTA Rehab Reference Center), OVID: MEDLINE/HealthSTAR/CINAHL, PubMed: MEDLINE, SUMSearch, PEDro, Cochrane Library, MERK manual.

**LEARNING UNIT 2 - ALTERNATIVE DISCHARGE OPTIONS/COMMUNITY SUPPORTS**  
*Clinical Day 3*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will identify community supports and discharge options or needs for patients/clients and/or caregivers.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day (note: these may be the same patients/clients the student has worked with on previous units). Students are to investigate community support and discharge options, which meet the individual needs of the patients/clients or the caregivers of those patients/clients. Students are to prepare this information as though they were presenting to a group of healthcare providers with discharge recommendations.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Provide discharge recommendations as if they were planning discharge with another healthcare provider
- Locate general information important to the patient/client or caregiver about community supports in the immediate area
- Anticipate how the expected discharge environment (i.e., skilled nursing, home, outpatient services, community resources) may affect the Physical Therapy Plan of Care

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Student will provide a brief discussion of the findings to the CI at a time of their choosing	Due at the end of the clinical day
Student will provide a short-written summary paragraph of the discussion and findings to the CI and DCEs	Due at the end of the clinical day

Time for Completion: Each student will be provided 1 patient/client and will complete the unit in one clinical day.

Recommended Resources: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Social Services/Discharge Planners in the facility if available
- Clinical instructors and Faculty.
- Internet searches for community resources

**LEARNING UNIT 3 - PHYSICAL THERAPY EXAMINATION:  
SUBJECTIVE AND OBJECTIVE COMPONENTS  
*Clinical Days 4 and 5***

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Based on the pathophysiology students will identify the functional limitations and impairments a patient/client may have and hypothesize a means of testing those functional limitations and underlying impairments.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day. Students are to examine the primary and secondary medical and/or physical therapy diagnoses of the assigned patients. From this alone, students should develop a subjective (patient interview questions) and objective (physical therapy tests and measures) component which could be included in a comprehensive physical therapy examination to determine the impairments, activity limitations and participation restrictions. Students should not be hindered by time, and should develop as comprehensive an examination as they feel necessary to collect all valuable information.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Develop and complete a patient/client interview
- Develop a list of physical therapy tests and measures to identify the patient’s/client’s functional limitations and impairments
- Apply tests and measures as appropriate for academic preparation with appropriate supervision
- If appropriate perform Manual Muscle Testing, ROM - emphasizing specific goniometric measurement rather than gross assessment, and gross mobility skills assessments of the patient/client in question
- Record findings of tests and measures applied by CI
- Reference one research article to support test or measure chosen
- Follow all HIPAA policies and delete all patient identifying information

Outcomes to be submitted to CI for review: The student(s) is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Students will write the Subjective and Objective components of the physical therapy evaluation using the data collected in the patient/client examination	Due at the start of the following clinical day
Present the findings and evaluation to the clinical instructor for feedback	Due at the end of the clinical day
Student will reference an evidenced based research article to support their findings along with the written summary.	Due at the start of the following clinical day

Time for Completion: Each student will be provided 1 patient/client per day and will repeat the unit for 2 consecutive days.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Examples of past Physical Therapy evaluations or documentation for that facility
- APTA Guide for Physical Therapist Practice and Rehab Reference Center (available online through the APTA)
- Clinical instructors and Faculty
- Medical databases via the internet, APTA website OVID: MEDLINE/HealthSTAR/CINAHL, PubMed: MEDLINE, SUMSearch, PEDro, Cochrane Library

**LEARNING UNIT 4 - PHYSICAL THERAPY EVALUATION: ASSESSMENT**  
*Clinical Day 6*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will develop a problem list and long term goals, and with guidance, provide a prognosis for reaching those goals.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day. This may be the patient/client assigned during Unit 3, however, given the unique nature of the clinical this may be a different patient/client. From information developed in an S and O sections, students will be guided through completion of the Assessment section of the SOAP note.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Develop a patient/client problem list including the impairments, activity limitations and participation restrictions.
- Discuss which impairments might impact the functional limitations observed
- Develop long term goals (LTGs) from the functional problem list
- Identify the following components in the documentation format used by the facility: Physical therapy diagnosis (summary/impression of the patient’s major impairments); Evaluation (factors identified that may influence the patient’s ability to meet PT goals, e.g., motivation, cognition); Prognosis (patient’s potential for reaching goals)
- Follow all HIPAA policies and delete all patient identifying information.

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Students will submit a written problem list, long term goals, prognosis, and rationale for that prognosis to the clinical instructor. This information, as it is generally part of a medical record can be handwritten. All writing must be legible, or it will be considered incomplete work.	Due at the start of the following clinical day.
Students should prepare an ‘Assessment’ as though part of the SOAP note.	Due at the start of the following clinical day

Time for Completion: Students will be provided 1 patient/client.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Examples of Physical Therapy evaluations or documentation for that facility (your CI can provide examples of these)
- APTA Guide for Physical Therapist Practice and Rehab Reference Center

**LEARNING UNIT 5 - PHYSICAL THERAPY PLAN OF CARE**  
*Clinical days 7 and 8*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will develop a beginning Physical Therapy Plan of Care.

Unit Organization and Guidelines: Students will be assigned one (1) case each day from the Clinical Instructor's caseload at the start of the clinical day. Based on the Physical Therapy assessment completed in Unit 4, students will develop a plan of care, which will address both functional limitations and impairments. Additionally, students will develop short-term goals to measure patient/client progress.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Develop a list of the impairments, activity limitations, and participation restrictions list and objective physical therapy examination
- Develop two (2) treatment alternatives to address each impairment and provide a rationale for that approach
- Develop short term goals (STGs) for each long term goal established
- Obtain and reference one research article to support the rationale for one of the chosen treatment alternatives

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Students will submit a written impairment list, and short-term goals to the clinical instructor.	Due at the start of the following clinical day.
Students should discuss treatment options selected with the student group and be prepared to demonstrate how to implement those options if requested by the clinical instructor.	Due at the completion of that clinical day.
Student will reference an evidenced based research article to support their findings along with the written summary.	Due at the start of the next clinical day.

Time for Completion: Students will be provided 1 patient/client per day. This unit will be repeated over 2 consecutive days.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Physical Therapy evaluations and documentation provided from the facility
- APTA Guide for Physical Therapist Practice and Rehab Reference Center
- Clinic or University library or other online resources (APTA website)
- Medical databases via the internet, OVID: MEDLINE/HealthSTAR/CINAHL, PubMed: MEDLINE, SUMSearch, PEDro, Cochrane Library

**LEARNING UNIT 6 - IMPLEMENTATION AND PROGRESSION OF TREATMENT**  
*Clinical day 9*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will implement a Physical Therapy Plan of Care and discuss modifications to that plan of care

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day, ideally the case will follow from days 7 and 8, but this is not required for completion of this unit. Based on the Physical Therapy assessment the student(s) will implement a plan of care (POC) and evaluate the outcome of the treatment session as well as the appropriateness of the original POC. Students will identify and discuss modifications to the POC implemented based on the response from the patient/client.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Perform specific Physical Therapy interventions developed to move the patient/client towards completion of the short term/interim goals
- Evaluate the outcome of the intervention (i.e., did the treatment meet your objectives for that session)
- Hypothesize modification of the POC based on the treatment outcomes achieved during the therapeutic implementation

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Discuss outcomes of the treatment session and modifications of the POC with the student group or clinical instructor	Due at the end of the clinical day.
Present a short-written summary of outcomes and modifications of the treatment plan to the CI including recommendations from the student discussions	Due at the start of the following clinical day.

Time for Completion: Students will be provided 1 patient/client. The unit will be completed in one clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Collaborative pathways used by the clinical facilities
- Faculty
- Clinic or University library or other online resources
- Exercise files available at site (printed or electronic)
- APTA Guide for Physical Therapist Practice and Rehab Reference Center



**LEARNING UNIT 7 - DELEGATION OF TREATMENT**  
*Clinical day 10*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will identify the scope of responsibility of Physical Therapy when delegating components of the Physical Therapy POC.

Unit Organization and Guidelines: Based on a POC of one (1) familiar patient/client, students will develop a comprehensive perspective of delegation of the Physical Therapy POC. The student(s) should expand upon the understanding of delegation, considering not only traditional support personnel (e.g., PTA, PT Aide) but should include all members of the health care team including family, other professional staff, and the patient/client directly.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Determine theoretically all individuals to whom the PT can appropriately delegate components of the PT POC (note: students should not restrict themselves to the support personnel available at the clinical facility, but consider all options).
- Determine which components of the POC the PT can delegate to each party
- Determine the basis for these delegation choices
- Determine whether the delegation choices made are consistent with the Standards of Practice in Physical Therapy, APTA Policies and Positions, the State Practice Act, Institutional Policies and Procedures

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Informally present the theoretical findings of the learning unit to the group/Clinical Instructor for discussion	Due at noon (12:00) on the clinical day
Discuss one actual delegation plan with the CI and student group by the end of the day	Due at the end of the clinical day.

Time for Completion: Students will be provided 1 patient/client. The unit will be completed in one clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- State Physical Therapy Practice Act
- APTA Guide for Professional Conduct
- APTA Policies and Positions
- Job descriptions of Physical Therapy and all support personnel available at the clinical facility
- Other clinic staff
- Family of the patient(s)/clients(s)

**LEARNING UNIT 8 - DOCUMENTATION**  
*Clinical day 11*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will complete various aspects of documentation in management of clients in Physical Therapy

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor's caseload at the start of the clinical day; will review the medical record with special attention to the Physical Therapy initial evaluation; and, will co-treat with the Clinical Instructor. Following co-treatment the student will be assigned all documentation requirements according to the requirements of the clinical facility.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Read, critique, and re-write in SOAP note format the physical therapy evaluation of the assigned patient/client
- On the assigned patient/client, co-treat with the CI and prepare a progress note in the required clinic format
- Prepare any ancillary documentation as assigned by the clinical instructor

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units. **Please remove all patient identifying information to maintain HIPAA compliance and privacy laws!**

Complete a Physical Therapy evaluation on the assigned client in SOAP note or facility designated format	Due at the end of the clinical day.
OR complete a PT Progress note on assigned patient/client	Due at the end of the clinical day.
Complete any ancillary documentation as required by the CI	Due at the end of the clinical day.

Time for Completion: Students will be provided 1 patient/client. The unit will be completed in one clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Documentation guidelines from the clinical facility's policy and procedure manual
- Medical records of the patient/client in question or other clients served by that clinic
- Clinical facility or health care organization chart audit review forms

**LEARNING UNIT 9 - REIMBURSEMENT AND COST OF CARE**  
*Clinical day 12*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will develop an understanding of fiscal responsibility in Physical Therapy client management.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day; will calculate all Physical Therapy charges accrued to date, as able, and will develop an understanding of the impact on reimbursement within the patient/client’s reimbursement model (i.e., will understand payment based on the type of medical coverage the patient/client presents).

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Calculate all Physical Therapy charges accrued to date on the assigned patient/client
- Identify the patient/client’s third party payor coverage
- Calculate the cost of care (i.e., cost of care = charges - reimbursement)
- Determine which Physical Therapy decisions need to be made based on reimbursement provided

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be submitted to the DCE at the completion of the course as evidence of successful completion of individual learning units.

Calculated Physical Therapy charges on assigned patient/client: if you are unable to get information on charges from the facility, use the Medicare Physician Fee schedule to estimate charges	Due at the start of the following clinical day
Description of third-party payor coverage	Due at the start of the following clinical day.
Complete an estimated cost of care calculation	Due at the start of the following clinical day.
Discuss findings with the student group and the clinical instructor	Due at the end of the clinical day.

Time for Completion: Students will be provided 1 patient/client. The unit will be completed in one clinical day, with work turned in the following clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Medicare Physician Fee Schedule tool: search tool: <https://www.cms.gov/medicare/physician-fee-schedule/search/overview>
- Medical records of the patient/client in question
- Billing records/business office records of the patient/client in question
- Patient/clients themselves
- Third party payor customer service information (number generally available in the medical record)

**LEARNING UNIT 10 – INTERPROFESSIONAL EDUCATION**  
*Clinical day 13*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will identify the roles and responsibilities of other health care providers in the management of a patient/client (i.e., RN, PA, APNP, OT, SLP, MA, etc.)

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor’s caseload at the start of the clinical day; and will identify and profile the individuals involved in care discussing the impact on the Physical Therapy Treatment plan.

NOTE TO CI: In this instance, you can present students with options of service providers who may be outside of the clinical facility directly; for example, include individuals monitoring progress at a health club, or church support, social support. This is not restricted to individuals available in the immediate clinical environment.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Identify other health care providers involved in the management of the patient/client
- Profile those health care providers
- Appreciate the impact of all health care providers in case management of an assigned patient/client
- Interview one non PT/PTA health care provider to discern their roles and responsibilities in patient/client management

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Present a written profile of the health care providers participating in the care of their assigned patient/client to include a write up from the health care provider interview.	Due at the start of the following clinical day.
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Time for Completion: Students will be provided 1 patient/client. The unit will be completed in one clinical day, with work turned in the following clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- The patient/client
- Health care providers available in the care of the patient/client (be sensitive to time issues)
- Job descriptions of various health care providers available on site
- State practice acts for other health care professionals

## LEARNING UNIT 11 - PHARMACOLOGY

### Clinical day 14

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will describe the impact of over the counter and prescription medications on the clinical presentation and physical therapy intervention.

Unit Organization and Guidelines: Each student will be assigned one (1) case from the Clinical Instructor's caseload at the start of the clinical day. The assignment will involve identification of suspected pathophysiology from a medication list and include a hypothesis on the impact of medications on the clinical presentation of the case.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Identify suspected pathophysiology of patient from their medication list
- Recognize/hypothesize impact of medications on the clinical presentation of the patient/client

Sample Cases as **alternate activity** if patients do not have multiple medications:

<i>Alternate Activity</i>	
<p><u>Outpatient case:</u> Medication list includes:</p> <ul style="list-style-type: none"> <li>• Tylenol #3</li> <li>• Flexeril</li> <li>• Diabinese</li> <li>• Feldene or Naprosyn</li> <li>• Xanax</li> <li>• Pepcid</li> </ul>	<p><u>Acute care case:</u> Medication list includes:</p> <ul style="list-style-type: none"> <li>• Glyburide 5mg q am (breakfast); 2.5 mg q pm</li> <li>• Hydrochlorothiazide 25 mg qd</li> <li>• Imipramine 150mg qhs</li> <li>• Nifedipine 90 mg qd</li> <li>• Potassium Chloride 20MEQ qd</li> <li>• Simvastatin 20 ms qhs</li> <li>• Ticlopidine 250 mg bid</li> <li>• Acetaminophen 650 mg q4 hours prn</li> </ul>

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Students will provide a brief discussion of the findings to the CI and submit a short, written summary paragraph of the discussion and findings to the DCEs	Due at the end of the clinical day.
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Time for Completion: Students will be provided 1 patient/client. Should be completed by the end of the clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Physicians' Desk Reference (generally available in the clinic environment or available in the University library online)
- Drug Formulary
- Pharmacist
- Pharmacology based applications such as Medscape or Epocrates

**LEARNING UNIT 12 - CASE STUDY**  
*Clinical day 15*

**Student:** \_\_\_\_\_

**Clinical Instructor:** \_\_\_\_\_

Unit Objective: Students will develop and present a case study based on the previous learning units.

Unit Organization and Guidelines: Students will be assigned one (1) case from the Clinical Instructor's caseload at the start of the clinical day and will prepare an oral and written case study addressing all learning units to date.

Learning Objectives: At the completion of this unit the student will:

- Identify multiple resources to assist with problem solving
- Obtain information relevant to providing a solution to the unit objective
- With guidance and collaboration interpret that information
- Integrate the previous learning units into a comprehensive understanding of Physical Therapy intervention

Outcomes to be submitted to CI for review: The student is responsible for completing the following documents and having them available to the clinical instructor within the specified time frame. All documentation will be uploaded to Exxat for DCE review at the completion of the course as evidence of successful completion of individual learning units.

Students will present an oral presentation (10 - 15 minutes) to clinical instructor (and other staff if able)	Date/time agreed upon by instructor
Provide a short-written summary of case study to the DCEs. Verify that all HIPAA regulations are followed and no patient identifying information is included.	At the end of clinical via Exxat

Time for Completion: Students will be provided 1 patient/client and will complete the entire case study within the clinical day.

Recommended Support Information: Students are encouraged to use any support information they feel helpful to solve the problem at hand. The following are recommended supports:

- Peers
- Previous learning unit materials
- All resources listed in the prior learning units can be used for this learning unit as well

## APPENDICES

The purpose of this appendices is to provide examples to augment each daily learning unit in order to clarify the rationale and intent and illustrate with examples how the daily learning unit can be completed.

### **Learning Unit 1: Physical Therapy Evaluation: Pathophysiology**

This daily learning unit (DLU) is intended to assist the student in understanding the impact of pathophysiology on physical therapy decision making and the provision of services. Students tend to focus on details and miss the big picture when trying to prioritize and design an appropriate plan of care. This DLU will guide them in considering all aspects of patient health, wellness, fitness, illness and disability when looking at the need for physical therapy services.

**Pathophysiology** = diabetes: (definition), monitoring of blood sugar levels, potential for PVD/sensory losses (ergo balance, vision...), increased risk of heart disease...

= CHF: response to exercise, fatigue, exercise intolerance, weight gain

= ACL tear: tissue healing, inflammatory response, loads/torque/weight bearing....