

# PT 634: DIAGNOSTIC IMAGING FOR PHYSICAL THERAPY

## In Workflow

1. PT Committee Chair (kbaxter@csus.edu)
2. PT Chair (mckeough@csus.edu;%20crummetth@csus.edu)
3. HHS College Committee Chair (knam@csus.edu)
4. HHS Dean (maguirem@csus.edu)
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8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. Catalog Editor (212408496@csus.edu;%20torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
10. Registrar's Office (w lindsey@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

## Approval Path

1. Thu, 12 Dec 2019 18:29:58 GMT  
Heide Katrin Mattern-Baxter (kbaxter): Approved for PT Committee Chair
2. Thu, 12 Dec 2019 18:38:58 GMT  
Heather Crummett (crummetth): Rollback to Initiator
3. Thu, 12 Dec 2019 18:43:12 GMT  
Heide Katrin Mattern-Baxter (kbaxter): Approved for PT Committee Chair
4. Fri, 13 Dec 2019 19:26:17 GMT  
Heather Crummett (crummetth): Approved for PT Chair
5. Tue, 04 Feb 2020 23:23:20 GMT  
Kisun Nam (knam): Rollback to Initiator
6. Wed, 26 Feb 2020 19:42:52 GMT  
Heide Katrin Mattern-Baxter (kbaxter): Rollback to Initiator
7. Wed, 26 Feb 2020 21:19:03 GMT  
Heide Katrin Mattern-Baxter (kbaxter): Approved for PT Committee Chair
8. Wed, 26 Feb 2020 21:50:08 GMT  
Michael Mckeough (mckeough): Approved for PT Chair
9. Tue, 03 Mar 2020 16:49:01 GMT  
Kisun Nam (knam): Approved for HHS College Committee Chair
10. Tue, 03 Mar 2020 18:32:51 GMT  
Mary Maguire (maguirem): Approved for HHS Dean
11. Wed, 08 Apr 2020 18:31:29 GMT  
Janett Torset (torsetj): Approved for Academic Services

Date Submitted: Wed, 26 Feb 2020 20:59:40 GMT

**Viewing: PT 634 : Diagnostic Imaging for Physical Therapy**

**Last edit: Wed, 26 Feb 2020 20:59:38 GMT**

Changes proposed by: Heather Crummett (210174092)

### Contact(s):

Name (First Last)	Email	Phone 999-999-9999
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### Catalog Title:

Diagnostic Imaging for Physical Therapy

### Class Schedule Title:

Diagnostic Imaging for PT

### Academic Group: (College)

HHS - Health & Human Services

### Academic Organization: (Department)

Physical Therapy

**Will this course be offered through the College of Continuing Education (CCE)?**

No

**Catalog Year Effective:**

Fall 2021 (2021/2022 Catalog)

**Subject Area: (prefix)**

PT - Physical Therapy

**Catalog Number: (course number)**

634

**Course ID: (For administrative use only.)**

201781

**Units:**

2

**In what term(s) will this course typically be offered?**

Fall, Spring

**Does this course require a room for its final exam?**

Yes, final exam requires a room

**Does this course replace an existing experimental course?**

No

**This course complies with the credit hour policy:**

Yes

**Justification for course proposal:**

The pre and co-requisites for all summer year 1 and fall year 2 courses in the program had to be changed because Geriatrics (PT 636) was moved from the summer to the fall semester.

**Course Description: (Not to exceed 80 words and language should conform to catalog copy.)**

This course provides an overview of imaging techniques commonly used in radiology and their implications to the role of physical therapists in professional practice. The role of imaging techniques in the diagnostic and intervention-planning processes for physical therapists is presented.

**Are one or more field trips required with this course?**

No

**Fee Course?**

No

**Is this course designated as Service Learning?**

No

**Does this course require safety training?**

No

**Does this course require personal protective equipment (PPE)?**

No

**Course Note: (Note must be a single sentence; do not include field trip or fee course notations.)**

Open to Physical Therapy Majors only

**Does this course have prerequisites?**

Yes

**Prerequisite:**

BIO 633, PT 600, PT 602, PT 604, PT 606, PT 608, PT 614, PT 618, PT 620, PT 622, PT 630.

**Prerequisites Enforced at Registration?**

Yes

**Does this course have corequisites?**

Yes

**Corequisite:**

PT 632, PT 638.

**Corequisites Enforced at Registration?**

Yes

**Graded:**

Letter

**Approval required for enrollment?**

No Approval Required

**Course Component(s) and Classification(s):**

Lecture

**Lecture Classification**

CS#02 - Lecture/Discussion (K-factor=1WTU per unit)

**Lecture Units**

2

**Is this a paired course?**

No

**Is this course crosslisted?**

No

**Can this course be repeated for credit?**

No

**Can the course be taken for credit more than once during the same term?**

No

**Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."**

(Referenced to Program Educational Goals and Related Objectives)

At the conclusion of this course, the student is expected to:

Student Learning Outcome 1.0: Demonstrate professional physical therapist effectiveness by creating and documenting a comprehensive physical therapy patient management process, including determination of the physical therapy needs of any individual, designing a plan of care that synthesizes best available evidence and patient preferences, implementing safe and effective psychomotor interventions, and determining the efficacy of patient outcomes.

1.1 Compare and contrast normal biological, physiological, and psychological mechanisms of the human body with pathophysiological factors that lead to impaired body functions and structure.

1.1.1 Discuss the etiology and clinical features of major disorders.

1.1.1.1 Utilize the results of imaging studies to compare and contrast normal biological, physiological, and psychological mechanisms of the human body with pathophysiological factors that lead to impaired body functions and structure.

1.1.2 Describe how pathological processes affect normal function.

1.1.2.1 Gain basic knowledge and practical experience in the multiple facets of diagnostic imaging.

1.1.2.2 Gain basic knowledge of the physics, technology and techniques for acquiring, viewing and interpreting imaging studies.

1.1.2.3 Know the advantages and shortcomings of commonly used imaging technologies.

1.1.2.4 Use radiology consultation and imaging data to understand the nature of pathology and to develop appropriate intervention plans.

1.1.2.5 Use imaging information to recognize pathology that requires referral to another health care professional.

1.1.2.6 Relate imaging data to pathology and clinical findings commonly encountered in physical therapy practice.

1.2 Determine the physical therapy needs of any individual seeking services.

1.2.3 Carry out appropriate and comprehensive patient examinations including tests and measures in a safe and client-centered manner.

1.2.3.1 Correctly identify the following types of imaging studies: radiographs, computed tomography (CT), magnetic resonance imaging (MRI), ultrasonography (US), radionuclide scintigraphy (bone scan), brain, heart, lung arthrogram, angiogram, and myelogram.

1.2.3.2 Describe the projections and positions commonly used for plain-film radiography.

- 1.2.3.3 Distinguish between air, fat, water, bone, contrast media and heavy metals on I imaging studies.
- 1.2.3.4 Orient imaging studies correctly for viewing.
- 1.2.3.5 Use the A-B-C-s system (Alignment – Bone Density – Cartilage Space – Soft Tissues) to systematically evaluate plain film radiographs of musculoskeletal structures.
- 1.2.3.6 Use systematic scanning methods for the following regional imaging studies: extremities, spine, brain, chest, and abdomen.
- 1.2.3.7 Demonstrate an understanding of the radiologist's report.
- 1.2.4 Determine, with each patient encounter, the patient's need for further examination or consultation.
  - 1.2.4.1 Identify when additional imaging data would improve a plan of care and collaborate with the appropriate healthcare professionals to obtain the data.
  - 1.2.11 Integrate and evaluate data that are obtained during the examination to describe the patient condition in terms that will guide the prognosis, the plan of care and intervention strategies.
    - 1.2.11.1 Correctly interpret the results of imaging studies and radiology reports to inform the physical therapy diagnosis and plan of care.
  - 1.2.13 Make a referral to another physical therapist, other health care practitioner or agency when physical therapy is not indicated or the patient/client's needs are beyond the skills, expertise and/or scope of practice of the physical therapist practitioner.
  - 1.2.13.1 Apply the results of imaging studies to identify patients with conditions outside the scope of physical therapists practice.
  - 1.2.14 Develop a plan of care based on the best available evidence and that considers the patient's personal and environmental factors.
  - 1.2.15 Describe the use of imaging results in informing the development of a physical therapy plan of care.
- 1.4. Implement the physical therapy plan of care designed to restore and/or maintain optimal function applying selected procedural interventions that demonstrate safe and effective psychomotor and clinical reasoning skills in a culturally and age sensitive manner.
  - 1.4.5 Coordinate patient/client care with other health care providers in a culturally and age sensitive manner.
- 1.5 Carry out appropriate and comprehensive patient examinations including tests and measures in a safe and client-centered manner.
  - 1.5.1 Determine, with each patient encounter, the patient's need for further examination or consultation.
    - 1.5.1.1 Carry out appropriate and comprehensive patient examinations including tests and measures in a safe and client-centered manner.
    - 1.5.1.2 Demonstrate the ability to instruct, in common vernacular, how images are created, what images reveal, and what risks are associated with each imaging modality.
    - 1.5.1.3 Apply effective verbal and written communication skills with patients, families, other health care professionals, and the public, to facilitate interventions and interdisciplinary interactions and cooperation.
  - 1.5.2 Perform a physical therapy patient examination using evidenced-based tests and measures.
    - 1.5.2.1 Articulate how additional imaging results will affect a physical therapy working hypothesis.
- Student Learning Outcome 3.0: Demonstrate professional behaviors by reflecting on personal and professional development, and by integrating cultural, ethnic, age, economic, and psychosocial considerations in the communication and delivery of clinical services.
- 3.2 Communicate effectively for varied audiences and purposes.
  - 3.2.1 Demonstrate effective interpersonal (verbal, nonverbal, electronic) communication skills considering the diversity of populations and environments.
    - 3.2.1.1 Utilize effective interpersonal (verbal, nonverbal, electronic) communication skills during classroom activities.
  - 3.2.5 Respect roles of support staff and communicate appropriately.
    - 3.2.5.1 Demonstrate respect and appropriate communication when dealing with departmental staff and support personnel.
- 3.4 Recognize the need for personal and professional development.
  - 3.4.1 Participate in self-assessment to improve clinical and professional performance.
    - 3.4.1.1 Complete all assignments and self-assessments in syllabus.
    - 3.4.2 Welcome and seek new learning opportunities.
    - 3.4.4 Accept responsibility and demonstrate accountability for professional decisions.
- 3.5 Demonstrate entry-level generic abilities, including:
  - 3.5.1 Professional accountability and commitment to learning.
  - 3.5.2 Recognition of one's own limitations.
  - 3.5.3 Effective use of constructive feedback.
  - 3.5.4 Effective use of time and resources.
  - 3.5.5 Demonstrate integrity, compassion, and courage in all interactions.

**Attach a list of the required/recommended course readings and activities:**

PT634Syllabus 2020\_revised.docx

**Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.**

**ASSESSMENT/ ASSIGNMENTS**

There are 4 course assessments

1. Quizzes (SLO1, & 3): (12.5% each)

- Objective of each quiz (4 – one after each week of material) is to be a platform for learning, giving you the opportunity to apply what you have learned in class on short at-home quizzes.
- See “course schedule” for due dates on Canvas.

2. Mid-term examination (SLO1, & 3): (15%)

- Objective of the exam is to provide the opportunity for you to demonstrate that you have integrated and can apply introductory course information over the first two weeks of material.

- To be completed in the course classroom
- 3. Final examination (SLO1, & 3): (15%)
  - Objective of the exam is to provide the opportunity for you to demonstrate that you have integrated and can apply introductory course information over the entirety of the material.
  - To be completed in the course classroom
- 4. Final Project (SLO1, & 3): (15%)
  - Short, PowerPoint presentation (no more than 5 slides) demonstrating how imaging informed the PT diagnosis and plan of care for a patient case of your choosing.
  - Project submission
    - i. Electronic submission: ONLY portable document file (.pdf) file types should be submitted (Print and save as pdf from power point please). Submit these to Canvas before our last class on Thursday 6/27/19.
    - ii. Title: PT634 Patient Case\_"your name here"

Course final grade is determined by the sum of the points earned, and a 5% participation component.

Students are required to COMPLETE ALL ASSIGNMENTS INDIVIDUALLY AND ADHERE TO THE CSUS EXPECTATIONS FOR ACADEMIC HONESTY. The student may use the course materials and as much time as needed to complete the assessments.

**GRADING SCALE:**

Grade Percent  
 A 93 –100%  
 A- 90 – 92%  
 B+ 87 - 89%  
 B 80.0 – 86%  
 B- 78.9 - 79.9%  
 C+ 77 – 78%  
 C 73 – 76%  
 C- 70 – 72%  
 D 60 - 69%  
 F 59% & below

**Is this course required in a degree program (major, minor, graduate degree, certificate?)**

Yes

**Has a corresponding Program Change been submitted to Workflow?**

No

**Identify the program(s) in which this course is required:**

**Programs:**

Doctor of Physical Therapy

**Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?**

No

**Will there be any departments affected by this proposed course?**

No

**I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.**

I/we agree

## University Learning Goals

**Doctorate Learning Goal(s):**

Critical thinking/analysis  
 Communication  
 Information literacy  
 Disciplinary knowledge  
 Intercultural/Global perspectives  
 Professionalism

**Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?**

No

**Please attach any additional files not requested above:**

DPT-SLO\_Letter.pdf

**Reviewer Comments:**

**Heather Crummett (crummetth) (Thu, 12 Dec 2019 18:38:58 GMT):**Rollback: Wrong Syllabus

**Kisun Nam (knam) (Tue, 04 Feb 2020 23:23:20 GMT):**Rollback: Committee approved the form with pending changes. Please refer to the discussion during meeting. Committee members from the department will provide the detailed changes to the chair/author. Once re-submitted, the chair may approve the proposal immediately.

**Heide Katrin Mattern-Baxter (kbaxter) (Wed, 26 Feb 2020 19:42:52 GMT):**Rollback: as discussed

Key: 4083