

Course specification

RARD 589: Medical Physics Seminar

Institute Name: Mahidol University

Campus/Faculty/Department: Faculty of Medicine Ramathibodi Hospital, Department of Diagnostic and Therapeutic Radiology

Section 1: General information

1. Course number and name

Course number: RARD 589

Course name: Medical Physics Seminar

2. Credit: 1 (1-0-2)

3. Curriculum and type of course

3.1 Curriculum: Seminar

3.2 Type of course: Required course

4. Instructors

4.1 Course Coordinator: Lect. Dr. Putthiporn Charoenphun

4.2 Instructors:

Asst. Prof. Dr. Sawwanee Asavaphatiboon

Lect. Dr. Puangpen Tangboonduangjit

Lect. Dr. Krisanat Chuamsaamarkkee

5. Semester/Year: 1st Semester, 1st year student

6. Pre-requisite: None

7. Co-requisite: None

8. Classroom: To be announced

9. Revision Date: 20th November 2019 By: Committee

Section 2: Purpose and Objective

1. Course Learning Outcome

1.1 Be able to demonstrate ability to search information in the literature, journal article and publication

- 1.2 Be able to understand, evaluate, summarise, and integrate knowledge in the issues related to medical physics from the academic publications.
- 1.3 Be able to effectively scientific communicate both by writing report and oral presentation
- 1.4 Be able to attend students' seminar, formulate sensible questions and participate in discussion according to seminar
- 1.5 Be able to consider ethical and logistic issues in research.

Section 3: Course details

1. Course Description

The principles and theories; analysis the major issue; identifying the problem; analysis the reliability; suggesting the problem solving; research question, design, and tools; ethics for conducting and publishing research

- 2. Hours per semester: Presentation 15 hours

Section 4: Course Learning Outcomes

| Course level learning outcomes | Programme level learning outcomes | Methods | Assessment |
|--|--|--|------------------------|
| 1. Demonstrate ability to search information, journal article and publication | ELO 5 | - Presentation | - Rubric presentation |
| 2. Understand, evaluate, summarise, integrate knowledge in the issues related to medical physics | ELOs 2, 3 | - Writing report - Presentation - Class participation and discussion | - Rubric presentation |
| 3. Effectively scientific communicate both by writing report and oral presentation | ELOs 1, 4, 5 | - Writing report - Presentation - Class participation and discussion | - Rubric presentation |
| 4. Attend students' seminar, formulate sensible questions and participate in discussion according to seminar | ELOs 2, 3 | - Class participation and discussion | - Participation record |
| 5. Consider ethical and logistic issues in research. | ELO 1 | - Presentation | - Rubric presentation |

Section 5: Lesson plan and assessment

1. Lesson plan

| Time | Topic | Instructor | Method | Assessment |
|--------------------------------|---|-------------------|--|--|
| In 1 st Semester | Research article related to medical physics | All staff member | - Literature review - Writing abstract and report - Presentation - Class participation | - Rubric presentation - Rubric report - Participation |

2. Measurement and evaluation of student achievement

| | |
|-------------------------|-----|
| 2.1 Abstract and report | 40% |
| 2.2 Presentations | 40% |
| 2.3 Class participation | 20% |

Section 6: Assessment and improvement of the course operation

1. Strategy to assess the effectiveness of the course by the students
 - Assessment of the course by student
2. Strategy to assess the instruction
 - Assessment of student's learning records
 - Assessment of instructor's teaching by student
3. Improvement of instruction
 - Consider the students' learning records
 - Consider the students' assessment of instructor's teaching
 - Consider the program committee's comment
4. Verification of student achievement in the subject
 - By program committee and faculty-level academic committee
5. Review and action plan to improve the effectiveness of the course
 - Using the results from 1-4 as inputs to the instruction improvement