

CAMPEP Graduate Programs

SDAMPP Coffee Break

September 13, 2024

David Hintenlang, PhD

Chair, Graduate Education Program Review Committee (GEPRC)

CAMPEP Graduate Programs

- Masters and PhD Graduate programs
 - Must be housed in a traditional University structure
 - Nationally accredited by an educational body (Not Joint Commission)
 - For example: A private practice Radiation Oncology practice would not be able to implement a CAMPEP graduate program.
- Certificate Programs
 - Provides a focused didactic experience in Medical Physics for students with a **PhD** in Physics or related discipline.
 - Six didactic courses
 - Must be affiliated with a CAMPEP Graduate or Residency Program
- Professional Doctorate in Medical Physics (DMP)
 - Integrated graduate and clinical training (residency) program.

Self Study Preparation

- Preparation is similar for each of these programs – but there are some differences.
- Examination of Graduate Standards will show that some standards are asterisked
 - This signifies that these are not required to be addressed for Certificate Program Self Studies
- Graduate Programs – Must address all Graduate Standards
- DMP Programs – Must address all Graduate Standards
 - Additionally address all clinical training (residency program) standards

7. Educational Environment

- 7.1 The program shall have mechanisms that encourage open discussion and communication, and facilitate the exchange of knowledge, experience and ideas.
- 7.2 *Conference, seminar, and journal club activities shall be used for students to practice their presentation and oral communication skills.
- 7.3 Students shall have access to a variety of journals, books, and appropriate resource materials.
- 7.4 Students shall have access to appropriate clinical and research facilities and the program shall demonstrate that clinical facilities and equipment are used in the teaching of practical aspects of core topics in imaging physics and radiation oncology physics.
- 7.5 Students shall be provided with a mechanism for regular feedback concerning the quality of their instruction and the diligence of their teachers and mentors. The students shall be protected from unwarranted retribution.
- 7.6 Feedback on the overall effectiveness of the program and recommendations for improvement should be sought from graduates.
- 7.7 Issues and concerns that are identified through feedback shall be evaluated by the steering committee and remedial action shall be taken where appropriate.
- 7.8 *Graduate students shall engage in research projects to develop a systematic approach to solving problems and to gain a familiarity with scientific method.

Application Process

- Graduate Program Self Studies are submitted on-line
 - CAMPEP.MyMOCAM.com
- MOCAM Software
 - Permits the entire self-study to be uploaded section by section.
 - Text is directly entered into responses to address each Graduate Standard
 - Program Directors may find administrative assistance valuable for uploading some of these items and in particular with Tables, etc. (pdf uploads may be preferable)
- Payment Process
 - Review of applications is not initiated until payment is in place.
 - Payment may be readily accomplished via Credit Card
 - Payment may be made via checks etc. by coordinating with CAMPEP
 - Jackie Ogburn <Jackie@campep.org>



Masters, Doctoral and Certificate programs in Medical Physics

DORMANT

BOOKMARK

Submitted Date: 07/05/2021

Ver: 8/2020

Graduate Program

PROGRESS

100%

No Notes

2. Structure



3. Admissions



4. Director



5. Faculty



6. Support



7. Environment



8. Curriculum



Standard 7: Educational Environment

7.1

** The program shall have mechanisms that encourage open discussion and communication, and facilitate the exchange of knowledge, experience and ideas.*

The following mechanisms have been put in place to encourage open discussion and exchange of ideas:

1. Monthly, program-wide research meetings. All graduate students attend monthly meetings, which are meant to facilitate free discourse following an informal presentation. When our program was smaller, each student would discuss their work over the previous month. However, with program growth we have changed format: only two students present per month, leaving ample time for exchange of ideas and feedback from peers.
2. Department of Radiation Oncology research meetings. These are held monthly and include one presentation per month. Following a hiatus, and with the arrival of a new Head of Radiation Oncology, this series has resumed and medical physics graduate students will present therein.
3. A BIODIC seminar series, where graduate students whose research is located in the BIODIC facility give regular presentations on their research.
4. Adjacency of graduate students. This is a simple but effective concept: wherever possible, we co-locate graduate students. For example, all students conducting research in RO physics, and some in Imaging physics, have office space situated in a large, open space to encourage socialization and exchange of ideas.
5. Lab-wide weekly meetings with supervisors. Most supervisors who supervise more than one student hold weekly meetings including all students and other research staff. Generally, these are very focused meetings that encourage free exchange of information, communication toward a goal, and problem solving.

7.2

** Conference, seminar, and journal club activities shall be used for students to practice their presentation and oral communication skills.*

By the completion of their programs, our graduates have gained substantial experience presenting orally, through the following:

1. Oral presentations in courses, e.g., MEDP6450 (Computational Methods in Medical Physics) and MEDP6410 (Medical Imaging Physics II).
2. Presentations in research meetings and seminar series (see above).
3. Presentations in Seminars in Medical Physics (MEDP6416), now formalized as a listed course.
4. At the Department of Radiation Oncology and Department of Radiology research days, which are held annually.
5. Most Masters students, and all Doctoral students will have the experience of presenting at a conference, at a national or international venue.

7.3

** Students shall have access to a variety of journals, books, and appropriate resource materials.*

All students have access to the comprehensive physical and online resources of the [Dalhousie libraries](#) and, for students placed at NSHA, the [Health Sciences Library](#). Dalhousie's online holdings include all of the key journals required for the program, including Medical Physics, Physics in Medicine in Biology, Int. J. Radiat. Biol. Physics, Radiotherapy and Oncology, Radiation Oncology, IEEE Transactions on Medical Imaging, etc., and both libraries support rapid sourcing of articles from more obscure journals where required. For more esoteric journals not held by either library, our NSHA administrative assistant is able to assist with inter-library loan, which has a usual turnaround time of a few days.


7.4

** Students shall have access to appropriate clinical and research facilities and the program shall demonstrate that clinical facilities and equipment are used in the teaching of practical aspects of core topics in imaging physics and radiation oncology physics.*


Provide details of clinical and research facilities.


Clinical research facilities employed in either teaching or research, or both, are listed below. Please refer also to course summaries—five of our courses (MEDP6400, MEDP6410, MEDP6423, MEDP6450, MEDP6431) include hands-on lab components that rely on imaging and treatment delivery platforms listed below.


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CAMPEP's Goals in Accreditation

- Ensure a stable environment for student education
- Ensure that students have appropriate educational opportunities in medical physics;
 - Didactic training
 - Research experience
 - Clinical experience

Program Information

- Identify the program as you would like it to be referred to.
- Ideally maintain the same name for reaccreditation submissions.
- Identify a single program director.

Preparing the Self-Study

- Address each standard individually
- Describe how the standard is met including relevant policies and procedures that ensure that the standard is consistently satisfied.
 - This typically requires at least 5-6 sentences – often substantially more.
 - A statement that the standard is met is insufficient.

PROGRESS

100%2. Structure3. Admissions4. Director5. Faculty6. Support7. Environment8. Curriculum

Standard 7: Educational Environment

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Standards

1. Program Goal and Objectives
2. Program Structure and Governance
3. Admissions
4. Program Director
5. Program Faculty
6. Institutional Support
7. Educational Environment
8. Core Graduate Curriculum

Some Common Concerns/Deficiencies

2. Program Structure and Governance

Steering Committee meetings

2 per year

Should be well documented with detailed minutes

Student communication to the Steering Committee

Updates to websites describing the program.

Some Common Concerns/Deficiencies

3. Admissions

Physics Background

Student may now be simultaneously enrolled in Certificate and PhD programs.

Follow stated admissions policies

Some Common Concerns/Deficiencies

4. Program Director

Policy describing the mechanisms for appointment of Program Directors

Changes of Program Director

Documentation required by CAMPEP

Some Common Concerns/Deficiencies

5. Program Faculty

Some Common Concerns/Deficiencies

6. Institutional Support

The program shall instruct its students regarding the professional, ethical and regulatory issues in the responsible conduct of research and in the protection of the confidentiality of patient information.

Documentation of this training must be consistently available for all students

Program Reviewers can assist with program needs in terms of institutional support.

Some Common Concerns/Deficiencies

7. Educational Environment

Student access and use of clinical and research facilities.

Clinical facilities should encompass both Rad Oncology and Radiology facilities.

Feedback from program graduates

Graduate students shall engage in research projects

Consistent documentation

Ensured for all possible pathways.

Some Common Concerns/Deficiencies

8. Core Graduate Curriculum

Radiation Protection and Safety

Depth of Fundamental of Medical Imaging

Medical Anatomy and Physiologic Processes

Professionalism and Ethics

These topics should be introduced in graduate educational programs and taught in greater detail in resident educational programs. For persons entering a residency program through the alternate pathway, all aspects of the CAMPEP standards in professionalism and ethics must be taught during the residency program.

Consistent documentation

Some Common Concerns/Deficiencies

Appendices

Course Materials

Steering Committee Minutes

Comments on Site Visits

- Typically include 2 reviewers
 - 1 – primary specialization in Radiation Oncology Physics
 - 1 – primary specialization in Imaging Physics
- Generally will request some suggestions for local accommodations
 - Expenses will be paid by CAMPEP
- Should not plan for after hours meetings/dinner with the reviewers and faculty. Could be perceived as a Conflict of Interest
- Working lunches are acceptable – and commonly provided to students as well a discussion forum between the reviewers and students.

Post-Site Visit

- Evaluators will out-brief with Program Director and team
 - Review observations and expected recommendations
 - May request some additional materials
 - i.e. Course outlines, Steering Committee Minutes, Faculty biosketches, etc.
- Preparation of Final Report (4 weeks)
- GEPRC Vote (2 weeks)
- CAMPEP Board Vote (2 weeks)
- Notification to Program Director & Awarding of Accreditation
 - ~ 2 months following site visit

Possible Outcomes

- Full Accreditation & Reaccreditation
 - 3yr (Initial – extendable to 5 year based on Annual Reports)
 - 5 yr
 - Accreditation for intermediate time periods
- Reaccreditation
- Provisional Accreditation
- Accreditation Denied

Program Evaluation Reports

- Almost always include Recommendations to the program
 - These are intended to improve program quality and ensure compliance with graduate standards.
 - Not “Required”
 - Should be addressed in Annual Reports
 - Will be reviewed by reviewers for the next reaccreditation to see how they have been addressed.
- Requirements
 - Are items of Non-Compliance
 - Must be addressed
 - Will result in Public Disclosure Posting if not addressed
 - If significant enough could result in Denial of Accreditation
 - Usually are required to be addressed in 90 days

Annual Reports

- Provide annual updates on Program Statistics
- Include statistics on student acceptance and graduation rates, destinations of graduates etc.
- Time frames:
 - Cover July 1 – June 30
 - Submission – Fall of each year

Discussion and Questions

