

Self Study Template

Graduate Program in Medical Physics

University Name

Date

Program Director

Name

Address

Telephone Number

Email Address

Program Website, if applicable

Revised: November 2012

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I. Program Goal and Objectives - 1 page maximum

The objective of a program must be clearly formulated.

II. Program Evolution and History - 1 page maximum

A brief history of the program's evolution including faculty, staff, and students shall be presented. An institution preparing a self-study in maintenance of its accreditation shall also list in this section all significant changes in the program since the previous self-study. These changes shall be described in more detail in the appropriate section of the self-study.

III. Program Structure and Governance - 2 pages maximum

The accreditation review will assess the stability and continuity of the organizational structure in which the training program is conducted. The self-study shall delineate relationships between departments and other academic programs that provide students with the necessary knowledge and broad understanding of the fundamentals of medical physics. The relationship to clinically oriented programs, such as residency training programs for medical physicists or physicians, shall be described.

The position of the medical physics program within an institution shall be clearly defined. The academic organization, such as the status of the faculty members in the program, the selection and approval process for the faculty that teach and direct graduate student education, and the procedure for granting degrees, must be described. The process and frequency of institutional review shall be noted, together with the rights of the faculty vis-à-vis institutional desires. Any collaborative arrangements among departments shall be specified. If several departments participate in the program, the role and commitment of each shall be explained. Likewise, access to clinical facilities and equipment shall be described.

The position of the program director in the academic and clinical organization must be explained, together with the relationship of the key director to other participating individuals, groups, and organizations. The process by which the program director is chosen shall be noted.

The mechanism by which the faculty is approved by the program shall be described, together with the means by which the direction and content of the program is governed by the faculty. Faculty committees shall be listed and their purposes defined. The process by which the various committees are established and committee members chosen shall be described. Minutes of all committee and faculty meetings shall be maintained and available for Graduate Education Program Review Committee (GEPRC) review at initial accreditation and reaccreditation site visits.

IV. Curriculum - 6 pages maximum

A Degree Requirements

The requirements for graduation from the program shall be defined. This shall include didactic curriculum (e.g., lecture and laboratory), method of clinical training (e.g., clinical rotations), and research training (e.g., special project, thesis, or dissertation). In addition, any other requirements for graduation (e.g., minimum grade point average or maximum time for graduation) shall be stated.

Note: Graduate education programs in medical physics offering degrees in which there are program options identified at the time of review as not meeting CAMPEP accreditation requirements shall be required to issue a certificate of CAMPEP compliance to those students who graduate having satisfied the didactic requirements of CAMPEP accreditation.

B Design and Content

The curriculum shall be consistent with recommendations presented in AAPM Report Number 197 "Academic Program Recommendations for Graduate Degrees in Medical Physics" The self-study document shall include an equivalence table, below, listing topics for each course, identifying the relevant recommendation from AAPM Report 197. Additionally, a summary of each course offering shall be given in an appendix.

Table 1: AAPM TG 197 Compliance

Report 197 Topic	Course Name(s) / Number(s)	Notes
Core Topics Radiological Physics & Dosimetry Radiation Protection and Safety Fundamentals of Medical Imaging Radiobiology Anatomy and Physiology Special Topics		
Imaging Science Mathematical Methods Conventional Planar X-Ray Digital X-Ray Imaging and CT Ultrasound Imaging Magnetic Resonance Imaging Nuclear Medicine		
Radiation Therapy Radiation Oncology External Beam Radiation Therapy Brachytherapy Treatment Planning Radiation Therapy Devices Special Techniques Neutrons, Protons, and Light Ions Radiation Protection		

Treatment Guidance Imaging Motion and Motion Management CT and 4D CT Portal Imaging Cone-Beam CT MV CT 2D and 3D Ultrasound Fusion, Registration, Deformation Gating and Coaching		
Laboratory Training		

C Sample Academic Plans

This section shall include sample academic plans that are distributed to incoming students. Since programs include required and optional courses and students do not always enter the programs in synchrony with the course offerings, these plans shall document an adequate frequency of courses. If some required courses are offered every other year, then academic plans for students entering on even or odd years shall be included. The provision for individual student needs and interests shall be discussed.

D Curriculum Evaluation and Modification

The process by which the institution approves the curriculum and course content as well as changes in the curriculum and course content shall be described. The methodology for the periodic review of the curriculum and the evaluation of courses by the students and faculty shall be described together with the frequency of evaluation and the mechanisms for change.

V. Students- 6 pages maximum

A Admissions

The application materials provided to prospective students shall be described. It is expected that these materials include a description of the institution's medical physics program, information on the admission standards including appropriate degrees, undergraduate coursework (and graduate coursework if appropriate), GPA, GRE scores, TOEFL scores, etc., and sufficient information on the application process for the student to make an application to the program.

Students entering a medical physics education program shall have a strong foundation in basic physics. This shall be documented by either a degree in physics or a degree in engineering or other area of physical science with physics education equivalent to a minor in physics (including at least three upper level undergraduate physics courses or equivalent required for a physics major). If applicants with deficiencies in their physics background are conditionally admitted to the program, the provision for remedial physics education shall be provided and described in the self-study.

The method of processing a student application shall be described, including the evaluation process and the method of informing students of actions taken on their application. Application due dates and an admission process timeline shall be specified.

The self-study shall provide information about the students admitted to the program for the previous five years and shall include previous degrees, GPA, GRE scores and any other information that can be easily compared with admission guidelines.

Table 2: Chronological List of Students Admitted into the Program - past 5 years

Student Ref #	Degree program + start year	Previous Degrees	GPA, GRE and TOEFL scores

B Recruitment Efforts

Each program shall have active recruitment efforts, which might include contacts with nearby university physics departments or their Society for Physics Students chapters, booths at local meetings of the American Physical Society or the Canadian Association of Physicists, etc.

C Enrollment

Program capacity shall be clearly stated. A list and status of all students in the program at the beginning of the academic year immediately prior to the self-study submission shall be provided here, to include time of entry into program, name of faculty supervisor and source of funding. The average time for full-time students to obtain a master's degree when entering the program with an appropriate background shall be approximately two years. Similarly, the average time beyond the master's degree for doctoral students to complete degree requirements shall be approximately three years, i.e., a total of five years of graduate study and research.

Table 3: Alphabetical List of Graduate Students

Student	Program	Supervisor	Year Entered	Funding Source

* denotes teaching assistant

D Evaluation of Student Progress and Student-Faculty Interactions

The method for evaluating student progress shall be delineated. The mechanisms of student advising for both academic and research activities shall be described. The governance process to handle unsatisfactory progress of students and student grievances shall be discussed.

E New Student Orientation

The self-study shall include a description of the graduate program's orientation process.

F Safety and Regulatory Requirements

The program shall provide introductory safety training regarding the potential dangers that students may encounter and measures to prevent damage to expensive equipment. The program shall have a published set of guidelines and restrictions addressing the relevant safety programs. Additionally, the students shall also have an understanding of patient privacy issues, ethics, etc., and receive training in regulations appropriate to clinical activities and research consistent with the recommendations in AAPM Report 159, "Recommended ethics curriculum for medical physics graduate and residency programs".

VI. Resources - 3 pages

A Faculty

A list of participating faculty and their role in the program shall be provided. For each faculty member, identify students being supervised, participation in committees, and provide a list of courses taught for the previous three years. The faculty shall be categorized by primary areas of specialization in medical physics. A biographical sketch following an appropriate standard format of each participating faculty or staff shall be provided in appendix E. The student-to-teacher ratio shall be presented and projected for the immediate future.

Table 4: Participating Faculty (Alphabetical)

Name	Title & Role	Affiliation(s)	Research Area(s)/Students

B Finances

The self-study shall list the methods available to finance graduate assistantships and fellowships (e.g., teaching assistantships, research assistantships, or fellowships) and describe the availability of financial aid. Additionally, the self-study shall identify the program's mechanism for assisting students in obtaining funding. The financial burden of a student shall be itemized in the self-study. This would include average costs for tuition, books, insurance, housing, and any other costs specific to being a student. The level(s) of student funding, breaking out stipend, tuition, and other benefits (e.g., insurance, books, etc), shall be provided.

Table 5: Financial Aid for Medical Physics Graduate Students

Funding Source	Student Stipend + benefits	Source Subtotal
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C Facilities

The self-study shall list by category all facilities used by the students. Their location, availability, and specialty shall be indicated. Student offices shall be available, particularly for master's students for whom a thesis is required and for doctoral students. Student laboratories, teaching laboratories and faculty laboratories accessible to the students shall be listed. Clinical equipment available for research shall be described.

VII. Future Plans - 2 pages maximum

A Summary of Strength and Needs

The program review shall conclude with a summary of the program's strengths and needs as perceived by the program itself.

B Further Developments and Improvements

Based on the program's objectives, the program shall describe a set of goals that, if achieved, would improve the program by capitalizing on its strengths and addressing its needs.

Appendix A - Letters of Invitation and Institutional Commitment

Appendix B - Documentation of Institutional Accreditation

Appendix C - Course Summaries – 2 pages each

Course Title:

Course No.:

Instructor:

Text:

Credits:

Semester(s) Offered:

Recommended References:

Evaluation Scheme:

Course Outline:

List of Topics by week

Course Appendix: 1 set of exams and/or other means of evaluating student performance, and at least 1 set of student evaluations of the course and course instructor(s)

Appendix D - Program Graduates

Reverse Chronological List of MSc Program Graduates - past 10 years

Name	Degree Granted & Date	Time in Program (m)	Thesis Title	Supervisor	Current Occupation	Board Certification

Reverse Chronological List of PhD Program Graduates - past 10 years

Name	Degree Granted & Date	Time in Program (m)	Thesis Title	Supervisor	Current Occupation	Board Certification

Appendix E - Faculty Biographical Sketches and Program Roles
Alphabetical List of Faculty

Name	Primary Specialty	Courses Taught (last 5 years)
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Biographical sketches in alphabetical order (last name, first name), maximum 3 pages each, in the format provided below.

Biographical Sketch – Last Name, First Name

Academic Appointment(s):	
Other Appointment(s):	
Education:	
Post Graduate Training:	
Certification(s):	
Role(s) in Graduate Program:	Examples: Course lecture for <i>Basic Interactions of Radiation with Matter</i> (3 semester hours, 40 contact hours) Member of Program Steering Committee Member of Program Admissions Committee
Academic Supervision:	Examples: Current supervisor for 2 PhD students; past supervisor for 8 PhD students and 3 MS students
Clinical Responsibilities:	
Research Interests:	
Research Summary (Number of each in the last 5 years, unless otherwise noted):	a) Peer-reviewed papers in refereed journals (total / last 5 years): Example: 78 (total) / 15 (last five years) b) Book chapters and conference proceedings: c) Published abstracts: d) Presentations at national/international conferences:
Research Funding Support:	
Listing of Selected Publications (last 5 years):	