

**C A M P E P**

Commission on Accreditation of Medical Physics Educational Programs, Inc.

**Guidelines for Accreditation  
of  
Certificate Programs in Medical Physics**

**Created: August 2013**

---

***Sponsoring Organizations:*** American Association of Physicists in Medicine, American College of Radiology, American Society for Radiation Oncology, Canadian College of Physicists in Medicine, Radiological Society of North America

One Physics Ellipse, College Park, MD 20740, Tel. (301) 209-3350, Web site: [www.campep.org](http://www.campep.org)

**Preface**

The Commission on the Accreditation of Medical Physicists Educational Programs (CAMPEP) is a nonprofit organization whose objectives are the review and accreditation of educational programs in medical physics. This document describes the procedure for application to CAMPEP for accreditation of a certificate program in medical physics.

**TABLE OF CONTENTS**

<b><i>Topic</i></b>	<b><i>Page Number</i></b>
1 ACCREDITATION .....	3
1.1 Definition and Scope .....	3
1.2 Rationale .....	3
2 EVALUATION PROCESS .....	4
2.1 Accreditation Application .....	4
2.2 Steps Involved .....	6
2.3 On Site Program Review (If Required) .....	6
2.3.1 Purpose and Structure .....	6
2.3.2 Site Visit Team Composition .....	7
2.4 Action Following Evaluation .....	7
3 MAINTENANCE OF ACCREDITATION .....	7
3.1 Annual Reports .....	7
3.2 Re-Accreditation .....	8
3.3 Action Following Re-accreditation Review .....	8
4 CHECKS AND BALANCES .....	9
4.1 Appeals of Adverse Evaluation Decisions .....	9
4.2 Procedures for Complaints.....	9
5 CONFIDENTIALITY OF INFORMATION .....	9

## **1 ACCREDITATION**

### **1.1 Definition and Scope**

Accreditation of a certificate program in medical physics is recognition that the program conforms to standards approved by the Commission on the Accreditation of Medical Physicists Educational Programs (CAMPEP). These standards are set such that the certificate program will equip alternative pathway applicants to medical physics residency programs with appropriate graduate level medical physics coursework preparation. Such standards require that the program offers established levels of educational opportunities and that the program curriculum is up-to-date and inclusive. In reviewing a program, CAMPEP pays special attention to the overall quality of the program as judged by the 1) competence of the teaching staff, 2) rigor and depth of instructional offerings, 3) adequacy of facilities and supporting personnel, and 4) the performance of the individuals who complete the program.

The current CAMPEP guidelines for evaluation of medical physics certificate programs closely follow the recommendations in AAPM Report 197S (February 2011). While strict adherence to these recommendations is not absolutely necessary, programs will be evaluated with regard to the intent of fulfilling these recommendations. The program requesting accreditation must satisfactorily justify reasons for significant deviation from these guidelines.

CAMPEP accreditation of a certificate program does not address the clinical competency of individual graduates. Certification that an individual Medical Physicist has demonstrated a prescribed level of professional competence is currently conferred by the American Board of Radiology (ABR), the Canadian College of Physicists in Medicine (CCPM) and, for some subspecialties, the American Board of Medical Physics (ABMP) and the American Board of Science in Nuclear Medicine (ABSNM). These organizations certify individuals independently of the accreditation of educational and training programs in medical physics.

### **1.2 Rationale**

Throughout the history of medical physics in North America, there have been a number of pathways for individuals to enter the field of medical physics. Initially these pathways included formal education in physics or a related science combined with on-the-job training in a preceptorship relationship with one or more established medical physicists. More recently, medical physics graduate and residency programs have become established in academic institutions. Differences in these programs, together with the variety of alternate entry paths still available to persons interested in pursuing a career in medical physics, are recognized as one of the strengths of medical physics in North America. However, this diversity also necessitates that educational and clinical training standards for entry into the field of medical physics be established and maintained.

To ensure that alternate pathway individuals who wish to pursue completion of a medical physics residency program have the appropriate graduate level medical physics didactic preparation, the AAPM developed the recommendations published in Report 197S and CAMPEP has adopted these recommendations as defining the minimum graduate level medical physics coursework that is required for an alternative pathway individual who wishes to complete a medical physics residency program.

## 2 EVALUATION PROCESS

The CAMPEP Board of Directors is the governing body for the accreditation process. The CAMPEP Graduate Education Program Review Committee (GEPRC) is responsible for reviewing medical physics certificate programs seeking accreditation and for recommending action to the CAMPEP Board of Directors following the evaluation process. The CAMPEP Board communicates the results of the program accreditation process to the institution.

CAMPEP is always willing to discuss with chairpersons of medical physics, radiology, radiation oncology, and nuclear medicine departments and other university administrative officials all aspects of clinical training and education in medical physics and, if requested, CAMPEP will offer suggestions and guidance on these issues.

### 2.1 Accreditation Application

The initial application submitted to the chair of the GEPRC of CAMPEP must include the following:

#### **Scenario A) – A certificate program being offered by a graduate medical physics program that is currently CAMPEP-accredited.**

For such a program, no application fee is required. The required documentation consists of:

- i) A listing of the specific courses *within the currently accredited graduate program* that are being used to satisfy the certificate program requirements indicated in AAPM Report 197S:
  - a. Radiological Physics and Dosimetry
  - b. Radiation Protection and Radiation Safety
  - c. Fundamentals of Imaging in Medicine
  - d. Radiobiology
  - e. Anatomy and Physiology
  - f. Radiation Therapy Physics

Note: Per current CAMPEP Policies and Procedures, "Remedial medical physics education courses, approved for the alternative pathway, must be received in the classroom and not online" – Section H.01, Procedure 04.

- ii) An attestation from the Program Director of the accredited graduate program indicating that the same courses utilized in the currently accredited graduate program to address each of the core topics in i), above, are used to define the proposed certificate program. If such an attestation cannot be made, the Program Director must provide the course syllabus information outlined in Appendix A for each course being used to satisfy AAPM Report 197S topics and must provide the information outlined in Appendix B for each instructor for each such course.
- iii) An attestation from the Program Director that the admitted individuals will have the appropriate background in 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

Commission on Accreditation of Medical Physics Educational Programs, Inc.

upper level undergraduate physics courses or equivalent required for a physics major).

**Scenario B) – A certificate program being offered by a medical physics residency program that is not associated with a graduate program that is currently CAMPEP-accredited.**

For such a program, a self study template is available from the CAMPEP website and a fee of \$3,000 is required at the time of application. A site visit will be required to fully evaluate the proposed certificate program.

Furthermore, as accreditation is being sought for a program that has not previously been accredited by CAMPEP, the following information is required:

***Official Request for Accreditation and Evidence of Commitment***

A letter from a principal administrative officer of the institution inviting CAMPEP to conduct an evaluation of the medical physics certificate program is required. An institution's request for its program to be evaluated by CAMPEP is totally voluntary and, as such, the institution agrees to abide by the decision of the CAMPEP Board of Directors.

***University Accreditation***

Institutions offering graduate medical physics courses to satisfy a certificate program must be accredited by a nationally recognized accrediting body. This accreditation is important since an educational program in medical physics covering all topics recommended in AAPM Report 197S requires broad institutional support in areas such as imaging physics, anatomy and physiology, radiobiology, and radiation therapy physics. A copy of this accreditation certificate must be included with the application.

## **2.2 Steps Involved**

Provided that the institution applying for accreditation satisfies the preliminary requirements listed above, the accreditation process involves seven steps.

1. The preparation and submission to CAMPEP of a certificate program application by the institution applying for accreditation. All application documents must be in English or must have an accompanying English translation. The fee for accreditation, if applicable, is due at the time the application is submitted. The review of the application by the CAMPEP GEPRC shall commence after receipt of the application fee, if applicable.
2. The preliminary review of the application by the CAMPEP GEPRC.
3. The resolution of any questions or concerns identified during the preliminary review. A satisfactory response from the program director to these questions is required before proceeding to the next step. If the preliminary review raises no concerns, this step is not required.
4. A site visit, if required, by representative members of the GEPRC.
5. The preparation of a certificate program evaluation report by the GEPRC prior to submission to the CAMPEP Board of Directors.
6. Consideration of the GEPRC recommendation by the CAMPEP Board of Directors.
7. Communication of the resulting recommendation of the CAMPEP Board of Directors to the applicant institution.

## **2.3 On Site Program Review (If Required)**

### **2.3.1 Purpose and Structure**

The site visit requires 1 day and is scheduled at a time that will permit the members of the site visit team to meet with one or more of the principal administrative officials of the institution, the faculty, and the certificate program students.

The purpose of the site visit is to a) meet and talk personally with faculty members, students, and administrative officials, b) observe the adequacy of facilities, c) to assess the aptitude and commitment of students and faculty, d) observe the general educational and scientific environment at the institution, and e) obtain any additional data required for evaluation.

The site visit team shall be provided with records generated by the program including, but not limited to, minutes of faculty meetings and governing committee meetings, course evaluations, lecture materials, and student admission records. Any records to which the site visit team has legal access shall be available for review at their request.

For certificate programs within North America, no additional fees beyond the accreditation / reaccreditation fees are required for the site visit. For programs outside of North America, an additional fee of the cost of two round trip business class airline tickets, less US \$1,000, is assessed anytime a site visit is required.

### 2.3.2 Site Visit Team Composition

The site visit team (generally two or three members of the GEPRC) is composed of experienced educators and scientists thoroughly familiar with CAMPEP criteria and knowledgeable about both administrative and technical aspects of successful programs. In the selection of members of the site visit team for a particular on-site evaluation visit, every effort is made to eliminate any conflict of interest or bias. For instance, a graduate of the institution under evaluation, or a person having a close and continuing relationship with the institution, would not be chosen to assist in the visit and evaluation. Neither would one be selected who is a faculty member at an institution in the same immediate geographical area nor from one having any substantial number of its graduates on the faculty at the institution being evaluated.

## 2.4 Action Following Evaluation

The possible actions taken by CAMPEP following an evaluation are:

**Initial Accreditation:** A certificate program may be granted initial accreditation for a period of three (3) years. If the program submits acceptable annual reports during the first three (3) years of accreditation, the program accreditation may be extended to five (5) years on the recommendation of the GEPRC and granted by the President upon recommendation by the GEPRC Chair.

**Accreditation Deferred:** This action may be appropriate for certificate programs that are found to be non-compliant with CAMPEP standards for accreditation to allow an adequate period of time for the institution to implement planned or suggested improvements in the program. This action postpones a final decision until specific additional information is provided which brings the program into compliance with CAMPEP standards.

**Accreditation Withheld:** This action is appropriate for certificate programs that are found to be non-compliant to CAMPEP standards for accreditation, nor does it appear that program changes could be achieved within a reasonable period of time to qualify for accreditation. After this decision, should accreditation be pursued, a new application shall be required including the appropriate fee.

When a certificate program is accredited, CAMPEP will provide a certificate of accreditation to the institution and a copy of the final GEPRC report listing any required and recommended changes. The program director must provide update information on any required and/or recommended changes at the time of each subsequent annual report.

The name of the institution and program will appear on the CAMPEP website on the list of medical institutions whose certificate programs have been accredited by CAMPEP.

## 3 MAINTENANCE OF ACCREDITATION

### 3.1 Annual Reports

Each accredited certificate program must submit annual reports. The report is requested by the GEPRC Chair each year around May 1<sup>st</sup> and must be submitted by July 1<sup>st</sup>. The report is submitted on line and each report is reviewed by the GEPRC at its summer meeting held in conjunction with the AAPM Annual Meeting. Following the reviews of the annual reports,

## Commission on Accreditation of Medical Physics Educational Programs, Inc.

any specific recommendations regarding a given program, i.e., extension of initial 3-year accreditation to a 5-year term, probation, etc., is made from the GEPRC to the CAMPEP Board of Directors following the summer meeting.

### **3.2 Re-Accreditation**

A certificate of accreditation of a medical physics certificate education program is valid for a maximum of 5 years. CAMPEP requires that applications for re-accreditation be submitted by 1 June of the final year of the current accreditation period. A re-evaluation is similar to an initial application review; the steps involved are the same, and the fee for re-evaluation is the same as for initial accreditation. It is the responsibility of the program to inform CAMPEP in the application of significant changes to the program that may have occurred during the period of accreditation. After evaluation of the application by CAMPEP, the review team will decide whether a site visit is required for re-accreditation.

### **3.3 Action Following Re-accreditation Review**

The actions taken by CAMPEP following re-evaluation are the same as that following initial accreditation with the addition of a category of probation.

**Accreditation Continued:** When the decision of CAMPEP is for continued accreditation, the program director is notified in a letter that includes any suggestions and recommendations CAMPEP might deem appropriate to promote the continued strength and vitality of the program.

**Probation and Accreditation Withdrawn:** If CAMPEP contemplates placing a certificate program on probation or withdrawing accreditation following a reevaluation, the reasons are summarized in a letter to the program director and the chief administrative officer of the institution. CAMPEP invites any additional information that the institution might wish to provide or any corrections in what was reported about the program. This additional information is then reviewed by CAMPEP at its next regular meeting before it takes any official action.

A program is placed on probationary status prior to any decision to withdraw accreditation. Probationary status results whenever significant changes have occurred in the medical physics staff and/or program that, in the judgment of CAMPEP, might prevent the institution from offering a program that meets CAMPEP criteria. Examples of such changes are crucial reductions in faculty numbers, in the quality and distribution of staff capability, etc. Every effort is made by CAMPEP to encourage and assist the institution to strengthen its program in deficient areas, and a period of time - usually not to exceed 12 months - is allowed for the institution to correct the deficiencies and to bring the program back into compliance with the criteria.

If compliance is not achieved within a prescribed period, a complete reevaluation of the program, including a site visit, is required unless the chief administrative officer of the institution indicates to CAMPEP that the institution prefers not to proceed with the reevaluation. In such cases, accreditation of the program is withdrawn. Accreditation is also withdrawn if, upon completion of the site visit and full reevaluation, it is clearly evident that the Program does not meet CAMPEP criteria and the institution is unable to assure CAMPEP of its ability to correct program deficiencies within the next year.



## **4 CHECKS AND BALANCES**

### **4.1 Appeals of Adverse Evaluation Decisions**

Adverse decisions by the Commission are placement on probationary status or the withdrawal or denial of accreditation. An institution may petition for review of an adverse decision if it believes that CAMPEP has not adhered to its own established policies and procedures or has failed to consider all of the evidence and documentation presented during the evaluation. The petition shall be addressed to the president of CAMPEP and must be sent within 30 days following the date of the letter advising the institution of the adverse decision. Moreover, all information supporting the petition must be received by CAMPEP within 60 days of the date of the letter advising the institution of the adverse decision.

Upon receipt of a petition and supporting information, CAMPEP will conduct a review, which may include a conference with representatives of the institution, if appropriate. CAMPEP will subsequently report its findings to the institution.

### **4.2 Procedures for Complaints**

Any administrative official of an institution, department chairman, faculty member, student, or other person, who disagrees with one or more of the policies or activities of CAMPEP and wishes to present a complaint, shall do so in a letter to the president of CAMPEP with appropriate documentation. The same procedure is to be followed should the complaint allege failure of an accredited institution to adhere to CAMPEP criteria or allege that there is a situation tending to jeopardize the quality and vitality of a program at an accredited institution. It will then be the responsibility of CAMPEP to investigate the matter and to advise the complainant of CAMPEP's conclusions not later than 30 days following CAMPEP's next regularly scheduled meeting.

## **5 CONFIDENTIALITY OF INFORMATION**

Institutions requesting the cooperation of CAMPEP for the evaluation of their medical physics certificate programs are expected to provide the Commission with detailed information pertinent to the programs. Institutions on the accredited list of CAMPEP are obligated to do so periodically as one of the conditions for continued accreditation. The information provided and all related discussion and correspondence between CAMPEP and an institution are solely for the confidential use of CAMPEP. In the event an institution appeals a CAMPEP decision, CAMPEP may use an *ad-hoc* appeals committee. In this case, CAMPEP would request permission from the institution to release to the appeal bodies information necessary for the proper conduct of the appeal.

In its annual reports, CAMPEP identifies those institutions whose programs are currently accredited. These annual reports also summarize statistical information provided by each institution about its medical physics graduates. Otherwise, CAMPEP holds confidential and does not release information about a particular program or evaluation.

***Appendix A - Course Summary Format***

Course Title:

Course No.:

Core Topic(s) in AAPM Report 197S being addressed by this course:

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 B - Biographical Sketch Format***

**Last Name, First Name, Degree(s)**

Academic Appointment(s):	
Other Appointment(s):	
Education:	
Post Graduate Training:	
Certification(s):	
Courses Taught in Certificate Program:	Examples: Course lecture for <i>Basic Interactions of Radiation with Matter</i> (3 semester hours, 40 contact hours)
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:	
Citations for Selected Publications (last 5 years):	