



International Atomic Energy Agency
Technical Cooperation



PROSPECTUS

Title:	Training Course on the Selection, Acceptance, Commissioning and Maintenance of Equipment in Radiotherapy (C7-RLA-6.072-007)
Place:	MDAnderson Cancer Center, Houston, Texas, USA
Date:	18-29 May 2015 * <i>Subject to the acceptance of the course by the host country</i>
Deadline for nominations:	<u>13 February 2015</u>
Organizers:	<p>The International Atomic Energy Agency (IAEA) in collaboration with the Government of USA through the Argonne National Laboratory (ANL), Argonne, Illinois, USA.</p> <p><u>Program Manager</u> Ms. Sunaree Hamilton Head, International Program Section Argonne National Laboratory Argonne, IL 60439 E-mail: shamilton@anl.gov</p> <p><u>Course Director</u> Mr Francisco Aguirre, Senior Medical Physicist, Department of Radiation Physics Division of Radiation Oncology The University of Texas MD Anderson Cancer Center, Houston, TX, USA E-mail: faguirre.medphys@gmail.com</p> <p><u>Programme Management Officer</u> Jose Antonio Lozada Email J.Lozada@iaea.org IAEA</p>
Language:	The language of instruction will be English.
Participation:	The training course is open to 30 participants from IAEA Member States of all geographical regions.
Target countries:	<p>The following IAEA Member States are invited to participate:</p> <p>Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.</p>

	<p>Asia and Pacific: Afghanistan, Bahrain, Bangladesh, Cambodia, Fiji, Iraq, Jordan, Kuwait, Lao, Lebanon, Mongolia, Nepal, Oman, Palau, Papua New Guinea, Qatar, Sri Lanka, Thailand, United Arab Emirates, Viet Nam and Yemen.</p> <p>Europe: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Georgia, Greece, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Malta, Montenegro, Moldova, Poland, Romania, Russian Federation, Serbia, Slovenia, Slovak Republic, Tajikistan, Ukraine and Uzbekistan.</p> <p>Africa: Morocco and South Africa</p>
Purpose of the course:	The main objective of this training course is to provide participants with knowledge of selection, acceptance, commissioning and maintenance of radiotherapy dosimetry equipment and radiotherapy treatment units, such as linear accelerators and brachytherapy equipment.
Expected Output(s):	The expected outputs are that the participants will gain knowledge on the selection, acceptance, commissioning and maintenance of radiotherapy dosimetry equipment and radiotherapy treatment units, such as linear accelerators and brachytherapy equipment. The participants will get copies of all the PowerPoint presentations used on the course.
Participants' qualifications and experience:	<p>Candidates should be clinically qualified medical physicists with at least 3 years working experience in a hospital and must participate in the specification, selection, acceptance, and commissioning of radiotherapy dosimetry equipment and treatment units, such as linear accelerators and brachytherapy equipment. The candidate should also be involved in routine quality assurance measurements on the radiotherapy units and radiotherapy physics dosimetric equipment. Nominees should be acquainted with the process of acquiring relative beam data measurements using an automatic water phantom.</p> <p>As the training course will be conducted in English, participants should have sufficient proficiency to follow lectures and express themselves in this language without difficulty.</p>
Nature of the course:	<p>The course will consist of lectures, presentations, discussion and at the weekend the participants will do practical sessions in the local radiotherapy center. This training Course, planned for two weeks, is intended to provide a knowledge of selection, acceptance, commissioning and maintenance of radiotherapy dosimetry equipment and radiotherapy treatment units, such as linear accelerators and brachytherapy equipment.</p> <p>The training course consists of lectures, discussions and practical sessions that will be held at the weekend at the MDAnderson Cancer Center, Houston, Texas.</p>
Background Information:	Linear accelerators and brachytherapy afterloaders are used to treat cancer. These are complicated machines so before they can be used clinically they must be accepted and commissioned by the medical physicist in the clinic. This course will provide the medical physicist with the required knowledge to perform these tasks.
References:	
<ol style="list-style-type: none"> IAEA TRS 398, Absorbed Dose Determination in External Beam Radiotherapy An International Code of Practice for Dosimetry Based on Standards of Absorbed Dose to Water IAEA Human Health Series 25, Roles and Responsibilities, and Education and Training Requirements for Clinically Qualified Medical Physicists. 	

3. IAEA Human Health Report 7, Record and Verify Systems for Radiation Treatment of Cancer: Acceptance Testing, Commissioning and Quality Control.
4. IAEA Human Health Reports 8, Development of Procedures for In Vivo Dosimetry in Radiotherapy.
5. IAEA TECDOC 1583, Commissioning of Radiotherapy Treatment Planning Systems: Testing for Typical External Beam Treatment Techniques.
6. IAEA 1296, Setting up a radiotherapy programme: clinical, medical physics, radiation protection and safety aspects.
7. IAEA 1297, Comprehensive Audits of Radiotherapy Practices: A Tool for Quality Improvement Quality Assurance Team for Radiation Oncology (QUATRO).
8. IAEA Safety Reports Series No. 38, Applying Radiation Safety Standards in Radiotherapy.
9. IAEA TRS 430, Commissioning and Quality Assurance of Computerized Planning Systems for Radiation Treatment of Cancer.
10. IAEA TECDOC 1274, Calibration of Photon and Beta Ray Sources Used in Brachytherapy.

Application procedure:

Candidates wishing to sign on for this course should access the communication platform InTouch (<http://intouch.iaea.org>). There they can register and complete and update their professional profile online, and also track their participation in the Technical Cooperation Programme.

In order to apply as a candidate for a course, please proceed as follows:

1. “Register”: Register to receive your user ID and password (help is available at: http://intouch.iaea.org/Portals/0/Help/How_to_sign_up.pdf)
2. “Profile”: Complete your profile on InTouch (help is available at: http://intouch.iaea.org/Portals/0/Help/Profile_Help.pdf)
3. “Apply”: Apply as a candidate for a course (help is available at: <http://intouch.iaea.org/Portals/0/Help/InTouch%20Help%20-%20Meeting%20Course%20Nomination.pdf>).

Help for each step can be found under the “Help” tab at the top of the web page.

Requests received after the deadline of **13 February 2015** will not be considered. Only applications submitted through the National Liaison Officer of your country and/or ARCAL National Coordinators will be accepted. Please indicate clearly the following reference: **C7-RLA6072-007**.

Alternatively, nominations can be submitted on the standard IAEA Nomination Form for Training Courses. See link below: <http://www.iaea.org/technicalcooperation/How-to-take-part/train-course/index.html>

Completed forms should be endorsed by relevant national authorities and returned to the Agency through the official channels, i.e. the designated National Liaison Office for IAEA Matters.

BSTIFII/ASITF:

To comply with the United Nations’ worldwide system of security measures, candidates are advised to take the courses BASIC SECURITY IN THE FIELD II (BSITF II) (new version replacing the course BASIC SECURITY IN THE FIELD (BSITF)) and ADVANCED SECURITY IN THE FIELD.

The courses can be accessed via the following links:

<https://trip.dss.un.org/dssweb/bsitf.aspx> and <https://trip.dss.un.org/dssweb/asitf.aspx>. Once you have passed, the system will generate a certificate valid for three years which can be submitted during this

	<p>period for any United Nations related travel. To upload the certificate to the InTouch platform, proceed as follows: in “My Files”, click on “My Personnel Files” and then on “Upload Documents”.</p>
<p>Administrative and financial arrangements:</p>	<p>This training course will be funded and implemented by the IAEA for the participants from Latin America and the Argonne National Laboratory, USA, for all other participants.</p> <p>Nominating Governments will be informed in due course of the names of the selected candidates and will at that time be given full details on the procedures to be followed with regard to administrative and financial matters.</p> <p>During their attendance at the course, the Latin American participants will receive an allowance from the IAEA, and the participants from other regions from the Argonne National Laboratory, sufficient to cover their costs of lodging, maintenance and minor expenses. The cost of their travel by air, in economy class, from their countries of origin to the city where the course is to be held and back to their countries of origin will also be covered. Shipment of accumulated training course materials to the participants' home countries is not the responsibility of the organizers.”</p> <p>The organizers of the course do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the course, and it is clearly understood that each Government, in nominating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.</p>