

## SPECIALITY TRAINING PROGRAM FOR ONCOLOGY-RADIOTHERAPY

Title of the residency study program	State code
Radiation oncology	733A30078

Academic awarding institution	Language
Lithuanian University of Health Sciences, Medical Academy, Oncology institute, Eiveniu 2, LT-50009 Kaunas, Lithuania	Lithuanian

Kind of studies	Cycle of studies	Level of qualification according to Lithuanian Qualification Structure (LKS)
University studies	Non-degree studies	7 <sup>th</sup> level

Mode of the studies and length in years	Volume of the program in ECTS credits	Total amount of student work	Formal teaching and practice hours	Independent self-direct learning hours
Full-time studies, 4 years	264	7040	3080	440

Area of studies	Main field of the study program	Parallel study program (if available)
Biomedical sciences	Medicine	-

Professional qualification awarded
Radiation oncologist

Head of study program	Director's contact information
Professor dr. Arturas Inciura	Office tel.: (+370 37) 327125, e-mail: inciuraa@takas.lt

Institution of accreditation	Accreditation until
Centre for Quality Assessment in Higher Education	Year 2014

Aim of the residency study program
To prepare a doctor specialist, universally educated, honest, initiative, self-sufficient but responsible ethically, creative, interested in science innovations, upholding democracy, able to solve problems and work in a team, having professional qualification in field of radiation oncology and able to apply acquired knowledge, skills and abilities in practical job, correspondent to Lithuanian Medicine Norm "Oncology-radiotherapy. Rights, duties, competency, responsibility". To provide knowledge and skills in scientific research and public presentation of professional matters.

Program profile		
Disciplines/subject areas	Orientation of the program	Distinctive features of the residency study program
Program consists of obligatory and optional cycles including theory, practice and self-sustaining job. First 2 years – basic of internal diseases: cycles of pulmonology, allergology and clinical immunology, cardiology, gastroenterology, rheumatology, nephrology, haematology, endocrinology, oncology, intensive care, emergency. Second and third year – radiation oncology: cycles of oncology, molecular pathology, morphology of tumours, radiology, clinical radiotherapy, radiobiology, physics	Program is orientated to practical activity and developing abilities for scientific research work, providing radiation oncologist professional qualification.	Unique "Radiation oncology" residency program is based on theoretical studies and practical and scientific job integration. Practical skills are obtained and theory course is realised with the help of University professors – residency base specialists. For the radiation oncology residency study cycles the main residency base – LUHS Hospital Public Institution "Kaunas Clinics" is accredited. Program is prepared taking into account: 1. LR legislation; 2. LUHS valid documents; 3. Lithuania Medicine Standard MN XX: 2007 „Doctor Radiation oncologist.

<p>of radiotherapy, chemotherapy, radiation therapy of tumours of head and neck, central nervous system, lungs, mediastini, digestive tract, bones, soft tissues, breast, skin, kidney, urether, bladder, prostate, urethra, oncogynaecologic tumours, lymphoma, leukemia, paliative radiotherapy, paliative care and pain. Optional cycles: radiotherapy of non oncologic diseases, child tumours, carcinoma of unknown primary, clinical trials, basic of biomedical statistics. Optional cycles are meant to inquire one particular field.</p>		<p>Functions, duties, rights, competency and responsibility” (Lithuanian Ministry of Health, 2007.04.16);</p> <ol style="list-style-type: none"> <li>4. Recommended ESTRO Core Curriculum for radiation oncologists / radiotherapists, third edition, edited April 2010 <a href="http://www.estro-education.org/europeantraining/Documents/CC_FINALapprovedESTRO_CCApril2010.pdf">http://www.estro-education.org/europeantraining/Documents/CC_FINALapprovedESTRO_CCApril2010.pdf</a>;</li> <li>5. Radiation Oncology in management Report of the inter-society council for radiation Oncology. Philadelphia, 1991;</li> <li>6. Lithuanian Hygiene requirements for radiation protection HN 95: 2005 „Radiacinė sauga ir kokybės laidavimas taikant spindulinę terapiją. <a href="http://sena.sam.lt/lt/main/teisine_informacija/higienos_normos?id=23853">http://sena.sam.lt/lt/main/teisine_informacija/higienos_normos?id=23853</a>;</li> <li>7. Comperhensive audits of radiotherapy practices: A tool for quality improvement. International Atomic Energy Agency, Viena, 2007; Bulajeva T., Lepaitė D., Šileikaitė-Kaishauri D. Studijų programų vadovas. Vilnius, 40 p., 2012.</li> <li>8. UEMS. Training requirements for the Speciality of Radiation Oncology. (European standarts of postgraduate medical specialist training. (Old chapter 6).<a href="http://www.estro.org/binaries/content/assets/estro/school/european-guidelines/training-requirements-for-the-specialty-of-radiation-oncology-february-2013.pdf">http://www.estro.org/binaries/content/assets/estro/school/european-guidelines/training-requirements-for-the-specialty-of-radiation-oncology-february-2013.pdf</a></li> <li>9. Cumming AD, Ross MT. The Tuning Project (medicine) – learning outcomes / competences for udergraduate medical education in Europe. Edinburgh: The University of Edinburgh, 2008. Prieiga per internetą: <a href="http://www.tuning-medicine.com">http://www.tuning-medicine.com</a>.</li> <li>10. Bulajeva T., Lepaite D., Sileikaite-Kaishauri D. Study program manual. Vilnius, 40 p., 2012 (prepared for project “National Concept Preparation for European Credit Transfer and Accumulation System (ECTS): Harmonisation of Credits as well as Creation and Implementation of the Learning Outcomes Based Study Programs Methodology“ (Nr. VP1-2.2-ŠMM-08-V-01-001).</li> </ol>
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<b>Admission requirements</b>	<b>Recognition of previous learning</b>
<p>Master degree in medicine and medical doctor professional qualification are obligatory. Admission by the way of general competition. Competitive score structure of is given in the conditions for entrance to the LUHS residency programs. The main components of competitive score is the average assessment of all subjects, studied during integral studies, final exam assessment, clinical medicine practice assessment, student’s scientific activities assessment (appointed by Student Science Association (SMD), motivational interview assessment. Motivational</p>	<p>Results of previous studies are accepted individually, taking into account the developed competencies and goals of program that correspond to „Radiation oncology“ residency study program, with the guidance of procedures set by LUHS Senate.</p>

interview takes place according to the schedule set in advance. Motivation Committee is composed of academic oncologist staff and residents representatives. Scientific activities in the field of oncology as well as qualities of human being are evaluated. Competition is public and takes place separately to every residential study program in two stages (main and additional). Second or additional stage can be organised if after the main admission free places are still available.	
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<b>Access to further education</b>
Third cycle degree studies may be an option (up to 10% choose to proceed to PhD).

<b>Access to professional activities (employability)</b>
Doctor with radiation oncology speciality can do practical job in state as well as in private health care institutions, which have a licence to run radiation oncology profile services, according to the licence obtained in Lithuania or abroad, can seek a scientific degree in doctoral studies. Radiation oncology licence is given by the State Health Care Accreditation Agency under the Ministry of Health of the Republic of Lithuania, after submitting diploma of completed medical studies program, internship certificate and certificate of completed residency.

<b>Learning and teaching approaches</b>	<b>Methods of assessment of learning achievements</b>
<p>Learning and teaching includes formal teaching and work-based experiential learning. Formal teaching includes lectures, seminars, consultations, case presentations, journal clubs, grand rounds, clinical skills demonstration and teaching using simulators, research projects.</p> <p>Activities of independent self-directed learning may include reading, maintenance of personal portfolio (log-book, self-assessment, reflective learning, personal development plan), research projects, reading journals. Skills and competences are acquired via their job as residents in Departments of oncology, radiation therapy conservative oncology, palliative care, outpatient department and other speciality departments. Head of the Department led word-rounds, personal word-rounds, multi-disciplinary team meetings, licenced doctor of internal diseases led night shifts. Residents have supervised responsibility for the care of in-patients. This includes day-to-day review of clinical conditions, note keeping, and the initial management of the patients with referral to and liaison with clinical colleagues as necessary.</p>	<p>Two steps of assessment: each cycle assessment and evaluation of all residency programs at the end of the residency studies. Cycle assessment may be at the end of the cycle or at the end of the study year.</p> <p>Forming assessment is applied during the residential studies seeking to assess critically and to adjust residents' learning. Credit is a forming assessment, done at the each year of studies. During it the course of each residential study year is summarised. Credit is multi-component. During these credits resident is assessed according to LUHS Regulation on Medicine Residency. Credit consists of the following:</p> <ul style="list-style-type: none"> <li>- Revision of theoretical knowledge;</li> <li>- Clinical situation decision;</li> <li>- Direct observation of procedural skills. During it resident is learning and is assessed taking into account special skills in radiation therapy for various cancer localisations with various techniques.</li> <li>- Multisource feedback (professors and other staff that works with resident evaluates resident's theoretical, clinical knowledge, punctuality, abilities to work in a team, politeness, deontology as well as discreteness towards patient, friendliness, collegiality, subordination);</li> <li>- Logbook notes assessment;</li> <li>- Other activities (courses studied and certificates obtained, articles surveys presentation in "Journals club", paper preparation and presentation in advanced training courses for doctors and events, presentations, performed studies) assessment.</li> </ul> <p>The final resident characteristic is formed at the end of 4<sup>th</sup> study year summarising resident's achievements and characteristics for cycles obtained each year.</p> <p>Total assessment summarises knowledge obtained by resident. It is done at the end of residency studies by final residency exam.</p>

<b>General competencies (knowledge, abilities, values and attitudes)</b>	<b>Outcomes (results) of residency study program</b>
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1.	Professional attributes	1.1	Be honest and honourable with patients, follow medicine ethics norms and requirements for good medicine practice, be critical toward others and himself/herself, be able to feel compassion for the patient, be creative and initiative.
2.	Professional activity	2.1	Have ability to evaluate the boundaries of his/her competencies in radiation oncology, to act independently, if there is a need, seek for a help, solve problems and take decisions, communicate and work in a team with specialists from other fields, be able to organise work and to plan time properly.
3.	Doctor as an expert	3.1	Be able to choose and to apply the most optimal methods of radiation therapy, constantly seek perfection in radiation oncology while continuing lifelong learning, be able to apply theoretical knowledge in practice, to pass own knowledge and abilities to colleges that have less practice, abilities to plan and to do scientific research.

Subject-specific competences (knowledge, abilities, values and attitudes)		Aims (results) of residency study program	
4.	Consultation with a patient	4.1	To identify and and interpretate symptoms, to evaluate patient's physical condition, to perform physical exam. To be able to classify the cancer using the TNM classification, to establish cancer diagnosis.
		4.2	Be able to explain to the patient and/or his relatives a goal and a meaning for the actions taken to the patient, to discuss further actions, to reassure and to motivate patient and/or his relatives, to understand legal aspects regarding informing patient and/or his relatives.
5.	Making a management plan	5.1	To perform primary (complaints, anamnesis, total examination) and secondary (interpreting tests' results and planning, performing and interpreting complementary tests' results) differential diagnostics on patients symptoms reasons. To be able to create an appropriate treatment plan for an individual patient, to apply an evidence-based cancer therapies, be able to assess potential drug-drug interactions and side effects and effectiveness of the treatment and response. To be able to diagnose and treat side effects related to specific cancer systemic treatment and radiotherapy.
6.	Radiation therapy: preparing, planning, realisation	6.1	To gain knowledge about modern diagnostics and radiation therapy (two-dimension, three-dimension external-beam radiotherapy, IMRT, IGRT, stereotactic radiotherapy, brachytherapy), to be able to work with these techniques.
		6.2	To perform external – beam radiotherapy and brachytherapy: to use CT and/or simulator for preparation to radiation therapy, to immobilise and positioning of the patient using special devices before radiation therapy procedure, to contour the target volume and critical structures, assess treatment plan, assess tolerance of healthy organs and tissues to radiation therapy, prescribe the dose and fractionation regime, use of the treatment verification systems, to use chemoradiation.
7.	Medical emergencies	7.1	Be able to recognise conditions that need emergency medical treatment, provide first aid, provide intensive care according to the valid recommendations, have abilities to treat oncologic emergencies.
8.	Common internal diseases: patient exam, diagnostics, treatment	8.1	To identify and and interpretate symptoms, to evaluate patient's physical condition, to perform physical exam. To perform differential diagnostics and to be able to create an appropriate treatment plan for an individual patient.