TOMSK POLYTECHNIC UNIVERSITY ТОМСКИЙ ПОЛИТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ

APPROVED BY

Director of Nuclear Science & Engineering School
_____ / Oleg Yu. Dolmatov
"25" 06 2020

Course Name: Fundamentals of medical ethics

Field of study: Nuclear Science and Technology

Programme name: Nuclear Science and Technology

Specialization: Nuclear medicine

Level of Study: Master Degree Programme

Year of admission: 2020

Semester, year: semester 3, year 2

ECTS: 3

Total Hours: 108

Contact Hours: 16

- **Lectures:** 8
- **Practical experience:** 8

Self-study: 92

Assessment: Credit-test

Division: Nuclear Fuel Cycle

Director of Programme _____ / Vera V. Verkhoturova

Instructor _____ / Evgeniia S. Sukhikh

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Course Name: Fundamentals of medical ethics

Course Overview:

Course Objectives	The main aim of the course is to learn students to effective communication with the medical staff, engineering staff and to discuss the topics of radiotherapy and nuclear medicine in frame of medical deontology in clinical practice. This course gives students knowledge of those significant guidance documents which are used in the field of Medical Physics for medical deontology in clinical practice. Students will be introduced to topics such as clinic data, staff members' responsibilities in radiation therapy department.
Learning Outcomes	**Upon completion of the course, a graduate will obtain the knowledge of:** – basics of information presentation in the field of medical physics for medical deontology in clinical practice, – basic of the international protocols with respect to the medical deontology in clinical practice; – basics of communication with non-physical staff in the radiotherapy departments **Upon completion of the course, graduates are expected to develop the following skills:** – to analyze and develop the international protocols with respect to the medical deontology in clinical practice; – to communicate with non-physical staff in the radiotherapy departments; – to conduct office work in frame of medical deontology in clinical practice in the radiotherapy department or nuclear medicine. **Upon completion of the course, graduates should acquire the practical experience in:** – development of the modern effective and cost-effective radiotherapy department based on rules of medical deontology in clinical practice.
Course Outline	The training course is delivered through the following teaching modes: – 4 lectures; – 4 practical experiences; The course consists of 2 sections, which are given below. **Section 1. Fundamentals of medical deontology. Area of competence and division of responsibility.** **Section 2. Psychological etudes of medical deontology.** Each section includes several lectures and practical experiences. In the frameworks of practical experiences, students prepare a presentation to be delivered in class. Presentations will be followed by instructor-led discussions. Performance of practical experiences is evaluated by means of students' oral presentations with maximal possible score equal to 100 pts.
Course Structure	The content of the course covers 2 sections. Each topic is studied through lectures and practical experiences. **Section 1. Fundamentals of medical deontology. Area of competence and division of responsibility.** The section describes the basics of medical deontology, as well as the areas of

	competence of a physician and physicist, the division of responsibilities between medical and physico-technical personnel working in a clinic. **Section 2. Psychological etudes of medical deontology.** The main psychological studies on the topics: the doctor is also a person, lack of time, mentality, hierarchy, material incentive, competition, medical worker, medical physicist, etc.
Facilities and Equipment	Lecture Hall with multimedia equipment: Tomsk, Lenina Ave,, 2, building 10, room 431.
Grading Policy	In accordance with TPU rating system we use: – Current assessment which is performed on a regular basis during the semester by scoring the quality of mastering of theoretical material and the results of practical activities (performance tests, perform tasks, problem solving). Max score for current assessment is 32 points, min – 22 points. – Course final assessment (exam/ credit test) is performed at the end of the semester. Max score for course final assessment is 60 points, min – 33 points. The final rating is determined by summing the points of the current assessment during the semester and protection of the course project at the end of the semester. Maximum overall rating corresponds to 100 points, min pass score is 55.
Course Policy	Attendance is strictly controlled. All classes are obligatory for attendance.
Teaching Aids and Resources	**Compulsory reading:** 1. Amestoy, William. Review of Medical Dosimetry / William Amestoy. - Cham : Springer International Publishing, - 2015. — 867 p.— Текст: электронный // SpringerLink. – URL: https://link.springer.com/book/10.1007/978-3-319-13626-4 (дата обращения: 20.09.2020). – Режим доступа: из корпоративной сети ТПУ 2. Stereotactic Body Radiation Therapy / by editor Yasushi Nagata. — Tokyo: Springer, - 2015. – 254 p. — Текст: электронный // SpringerLink. – URL: https://link.springer.com/book/10.1007/978-4-431-54883-6 (дата обращения: 20.09.2020). – Режим доступа: из корпоративной сети ТПУ. 3. Brachytherapy. Techniques and Evidences / by editors Y.Yoshioka, J. Itami, M. Oguchi, T. Nakano. - Singapore: Springer, 2019. – 304 p. — Текст: электронный // SpringerLink. – URL: https://link.springer.com/book/10.1007/978-981-13-0490-3 (дата обращения: 20.09.2020). – Режим доступа: из корпоративной сети ТПУ. **Additional reading:** 1. Podgorsak, Ervin B. Radiation Physics for Medical Physicists / Ervin B. Podgorsak. – Cham : Springer International Publishing, - 2016. — 906 p. — Текст: электронный // SpringerLink. – URL: https://link.springer.com/book/10.1007/978-3-319-25382-4 (дата обращения: 20.09.2020). – Режим доступа: из корпоративной сети ТПУ. **Internet resources**: 1. Электронно-библиотечная система «Лань» - https://e.lanbook.com/. 2. Электронно-библиотечная система «Юрайт» - https://urait.ru/. 3. American Association of Physicists in Medicine: https://www.aapm.org/ 4. European Association of Nuclear Medicine: http://www.eanm.org/

	5. International Atomic Energy Agency: https://www.iaea.org/ 6. Коллекция рекомендаций Американской ассоциации медицинских физиков https://www.aapm.org/pubs/reports/ 7. Benedict SH, Yenice KM, Followill D. Stereotactic body radiation therapy: The report of AAPM Task Group 101. Med. Phys. 2010; 37 (8): 4078–4101: https://aapm.onlinelibrary.wiley.com/doi/full/10.1118/1.3438081 8. Roles and Responsibilities, and Education and Training Requirements for Clinically Qualified Medical Physicists. IAEA HUMAN HEALTH SERIES No. 25. INTERNATIONAL ATOMIC ENERGY AGENCY VIENNA, 2013. – 88p. https://www.iaea.org/publications/10437/roles-and-responsibilities-and-education-and-training-requirements-for-clinically-qualified-medical-physicists 9. Christina Skouroua, and et al. Code of ethics for the American Association of Physicists in Medicine. (Revised): Report of Task Group 109. Medical Physics, 46 (4), April 2019 https://aapm.onlinelibrary.wiley.com/doi/epdf/10.1002/mp.13351. 10. Naim Ozturka. Ethics and professionalism in medical physics: A survey of AAPM members. Med. Phys. 40 (4), April 2013. https://www.aapm.org/pubs/reports/EthicsProfessionalism.pdf
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