University of Ljubljana
Faculty of Health Sciences

Oddelek za radiološko tehnologijo	**Medical imaging and radiotherapy department**
Naslov:	**Address:**
Univerza v Ljubljani	University of Ljubljana
Zdravstvena fakulteta	Faculty of Health Sciences
Zdravstvena pot 5	Zdravstvena pot 5
1000 Ljubljana	1000 Ljubljana
Slovenija	Slovenia

Erasmus faculty administrative coordinator:

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Erasmus code:	**SI LJUBLJA01**

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Student accommodation

1. Student Dormitories

Erasmus students can apply for a bed in student dormitories. They are given to students on "first come first serve" basis. The rooms in the dormitories are double, with bathroom and shared kitchen. The access to internet is available in all dormitories.

Application and deadline: erasmus.uni-lj.si

- 1st semester and full year students: **15th May**
- 2nd semester students: asap – deadline **15th November**

2. Private accommodation

The Student Organization of the University of Ljubljana and your buddy (tutor) will **help you in find** private accommodation **after** your arrival to Ljubljana.

After you arrive, you should visit with your buddy the International Office of the Student Organization. They will provide you with some addresses which you will visit and decide about taking the room or not. All available accommodation is located within the public transportation zone. You may check in advance the following web pages:

www.lifeinljubljana.si
www.realestate-slovenia.info
www.housinganywhere.com

Travel information

Ljubljana's airport is 20 km north of Ljubljana and there are shuttles to the city centre available every hour (8-9 €). Slovenian airline is called Adria airways http://www.adria.si/en/index.cp2 - it flies to most European cities. Easy Jet flies from Ljubljana - London Stanstead. Nearby airports are Venice, Trieste, Bologna. From them, transport to Ljubljana is easy. There are a lot of different shuttle transports, train....

GO OPTI - http://www.goopti.com/en/routes

MARKUN - http://www.prevozi-markun.com/#!home/c2265

FLIXBUS - https://www.flixbus.si/

NOMAGO - https://www.nomago.si/

Administration

Help regarding all necessary administration will be offered to all students upon arrival. Students need to bring one photo for documents, copy of ID or passport.

Writing home, e-mail, mobile SIM card

Internet access is available from the College (free) and students' dormitories (approximately 2 EUR per month). Slovenian mobile SIM card for exchange students is available for 1 Euro – with Slovenian Student identity card.

Uniforms

Students **must** have a uniform (trousers/skirt + tunic) and shoes (for indoor use only). You will have to launder yourself.

Personal name badge is obliged in the hospitals.

Winter clothes

Temperatures can vary from -10 to 15°C in winter time. We recommend you warm clothes and boots.

Meals

All students with student card are entitled to subsidised meals in most restaurants around Ljubljana.
Each student can use as many subsidies as there are working days in a month (app.20 per month).
In order to be able to use these subsidies, you need to have a student card or your enrolment certificate, your ID/passport and your mobile phone (with Slovenian sim card).

Cost of living

This information on the cost of living in Slovenia should only be used as a guide (prices are per month).

ACCOMODATION	400€ (private accommodation/small apartment) 80€ - 200€ (dormitory)
STUDY MATERIAL	mostly photocopies (0,05€/copy)
FOOD	subsidized meals: average 4€/meal
CITY TRANSPORTATION	20€ /month (Urbana bus card, biciklj); up to 50 € for a second hand bicycle
TOTAL	App. from 250 - 500€ per month

Hospitals

Clinical placements are offered in two cities:

Ljubljana's hospitals;

1. University medical centre Ljubljana is a public health care institution providing medical services at the secondary and tertiary level with 7500 employees and 2390 patient beds. Radiology departments are in the main building, in neurology, trauma, paediatrics and in three smaller departments. There is also a nuclear medicine department with SPECT/CT and PET/CT.
2. Institute of Oncology with Oncology centre with 840 employees. There is a diagnostic ward, radiotherapy department and nuclear medicine department with PET/CT.

Maribor's hospitals;

1. University Medical Centre Maribor is a public health care institution providing medical services at the secondary and tertiary level with 3360 employees and 1320 patient beds. Radiology departments are in the main building.

Clinical placements can be granted in diagnostic, radiotherapy or veterinary field. Please let us know well in advance where you would like to rotate, in order to allow us enough time to organize the placements.

Radiation monitoring

Personal TLD`s will be provided by the faculty.

Insurance

Health insurance is free for all EU citizens with a European health insurance card. This should be arranged **prior** to your arrival to Slovenia.

Medical examination

There is no need for extra medical examination but please bring a card with a record which proves evidence of immunity to: hepatitis B, BCG, rubella (for ladies).

More information can be found on the following sites:

University of Ljubljana
Kongresni trg 12
SI-1000 Ljubljana
International Relations Office
Telephone: +386 1 24 18 592
Fax: +386 1 24 18 593
e-mail: intern.office@uni-lj.si
Web: www.uni-lj.si/en/

Student Organization (ŠOU)
International Office
Kersnikova 4
SI-1000 Ljubljana
Telephone: +386 1 43 17 010
Fax: +386 1 23 19 448
e-mail: student.exchange@uni-lj.si
Web: www.sou-lj.si/novo/index.php?option=com_content&task=view&id=16&Itemid=39

More information also on http://www.esn-ljubljana.org/ and http://www.esn-ljubljana.org/pdf/ESN_FAQ.pdf

Information about Slovenia in English http://www.slovenia.info/?lng=2, and facts / statistics http://www.stat.si/eng/index.asp and Slovenia in figures

Information about Ljubljana in English http://www.visitljubljana.si/en/ and http://www.ljubljana.si/en/municipality/

We wish you a pleasant stay in Ljubljana, Slovenia.
Dobrodošli/Welcome!

ERASMUS EXCHANGE MODUL

Lectures for all Erasmus students will be provided in English language. Erasmus exchange module is composed of academic component, language course and clinical practice.

ERASMUS EXCHANGE MODUL	
Fundamentals of Digital Imaging in Radiology	3 ECTS
Erasmus clinical practice	11 ECTS
Linguistic and cultural diversity awareness in healthcare	3 ECTS
Quality control in general radiography	3 ECTS
Preventing musculoskeletal problems among health professionals	3 ECTS

ACADEMIC COMPONENT - 6 ECTS

Lectures will be given in two topics, one will be computed tomography and the other is about the fundamentals of digital imaging in radiology.

1 PREVENTING MUSCULOSKELETAL PROBLEMS AMONG HEALTH PROFESSIONALS – 3 ECTS

A subject is composed of theoretical and practical part.

Content of the lectures:

- Overview of most common injuries of health professionals
- Risk factors for developing musculoskeletal injuries of health professionals
- European guidelines for lifting and carrying heavy objects
- Guidelines for safety when lifting and transferring patients
- Biomechanics of lifting
- Body mechanics during lifting

Use of specific devices for lifting and transfer of patients

1.1 OBJECTIVES AND COMPETENCES

Upon completion of this course, the students:

- will have knowledge about the guidelines for lifting and carrying heavy objects
- will master the biomechanics of lifting
- will be able to correctly use techniques of lifting and transferring patients
- will be aware of the prevention strategies of overloading and strains of the musculoskeletal system
- will be able to use the devices for lifting and transferring patients.

1.2 ASSESSMENT

Project assignment

2 FUNDAMENTALS OF DIGITAL IMAGING IN RADIOLOGY – 3 ECTS

A subject is composed of theoretical and practical part.

Content of the lectures:

1. Digital Images
2. The Spatial and Frequency Domains of digital images: Fourier Transform
3. (Digital) Image Quality
4. Image Enhancements
    - Contrast Adjustments
    - Image Filtering
    - Spatial Transformations

2.1 OBJECTIVES AND COMPETENCES

- to get basic knowledge of medical digital image processing and analysis,
- to understand the mathematical aspects of medical images construction, image enhancement, image frequency-domain processing, and quality assessment,
- to perform actual practice of image processing.

2.2 ASSESSMENT

Oral exam

2.3 INTENDED LEARNING OUTCOMES

- understanding the mathematical aspects of medical images construction and processing,
- the abilities to apply digital imaging processing methods to correctly enhance, interpret and analyze medical images,
- basic skills for medical image processing in CAD systems.

2.4 REFERENCES:

Roger Bourne, Fundamentals of Digital Imaging in Medicine, Springer, 2010.

Geoff Dougherty, Digital Image Processing for Medical Applications, Cambridge University Press, 2009

3 LINGUISTIC AND CULTURAL DIVERSITY AWARENESS IN HEALTHCARE

Content of the lectures:

- basic universal communication patterns in discourse design and basic universal grammatical patterns in the Slovene language
- the constituent parts of speech acts
- basic communication patterns in communication with patients and healthcare providers
- specific cultural and social conditioning of wording, similarities and differences
- diversities of the Slovene language (geographical, political, historical and social factors)
- otherness and differences of individual and social cultures, attitudes towards foreigners and vulnerable social groups
- basic data about Slovenia (geography, demographics, history, politics, culture and other)
- the intertwining of culture, language and translation in communication in the field of healthcare
- healthcare system in Slovenia

2.1 OBJECTIVES AND COMPETENCES

Communication competences in the Slovene language:

- receiving, constructing and transferring simple everyday language units in everyday oral and written communication
- recognizing and using basic grammatical structures in everyday communication
- recognizing the constituent elements of speech acts (speaker, addressee, circumstances and context)
- receiving, constructing and transferring simple everyday language units in communication with patients
- awareness of interlingual impact on social roles

Learning and awareness of sociocultural and linguistic diversities:

- development and enhancement of intercultural competences, respect for cultural and nation-specific diversities
- development of positive attitude towards other languages and cultures, transcending national stereotypes and accepting otherness
- awareness of cultural and linguistic varieties
- emphasizing multilinguistic values and motivation for lifelong learning of foreign languages
- identifying and meeting specific needs of patients in regards to their different social, cultural and historical background

2.2 ASSESSMENT

20,00 %	•	active participation in lectures and tutorials
20,00 %	•	course work
30,00 %	•	oral examination
30,00 %	•	written examination

2.3 INTENDED LEARNING OUTCOMES

Knowledge and understanding:

Upon completion of this course, the student will be able to:

- use the acquired basic oral and written communication skills in everyday situations
- apply the acquired language skills in communication with patients and healthcare providers
- display multicultural competences in communication on the basis on intercultural awareness and respect for diversity
- use newly acquired linguistic competences and intercultural sensitivity while taking into consideration specific social and cultural circumstances

Transferrable skills:

- transfer the awareness and value of intercultural communication and act in accordance with identified cultural differences in Europe and beyond
- transfer the acquired linguistic and communication competences in multilinguistic and multicultural society in the field of healthcare
- provide patient-tailored care in respect to their otherness

2.4 REFERENCES:

ARAKELIAN, Catharine, BARTRAM, Mark, MAGNALL, Alison. Hospital English: The Brilliant Learning Workbook for International Nurses. London: CRC Press, Taylor and Francis group, 2016, str. 12 – 52.

FERBEŽAR, Ina, PIRIH SVETINA Nataša. Vključevanje v slovensko družbo. Ljubljana: Znanstvena založba Filozofske fakultete, 2016, str. 95 -116, 173 – 186, 203 – 219.

STRAJNAR Anja, PISEK Staša, JERMAN Tanja. Slovenščina ekspres 1: Učbenik za začetnike na tečajih slovenščine kot drugega in tujega jezika. Ljubljana: Znanstvena založba Filozofske fakultete, 2015.

4 QUALITY CONTROL IN GENERAL RADIOGRAPHY

3 ECTS - A subject is composed of theoretical (20 hours), practical part (5 + 10) and individual work (55 hours).

Learning and teaching methods: Lectures, seminar, seminar work, lab work.

Lecturer: Nejc Mekiš

Course type: elective professional

Content (Syllabus outline):

- Quality control of general radiography unit
- Quality control of imaging systems in general radiography
- Quality control of dosimetry equipment in general radiography unit
- General principles for optimization in general radiography

Basic methodology for dose optimization in general radiography

Objectives and competences:

Student acquires theoretical and practical knowledge how to perform detailed quality control in general radiography. Student acquires basic principles for optimization in general radiography.

Intended learning outcomes:

Knowledge and understanding:

Student is familiar different quality control tests used in general radiography. Student gains knowledge how perform quality control tests in accordance with the latest standards. Student is acquainted with the basic methods for optimization in general radiography

Assessment / weight:

Successfully completed project work / 100%

References:

1. Institute of Physics and Engineering in Medicine (2005). Report 91: Recommended Standards for the Routine Performance Testing of Diagnostic X-Ray Imaging Systems.
2. Bushong SC (2013). Radiologic science for technologists: physics, biology, and protection. St. Louis: Elsevier Mosby

Welcome to the forum for Erasmus Ljubljana http://erasmusu.com/en/erasmus-ljubljana/erasmus-forum/erasmus-ljubljana-2016-2017-english-54451

This is the place where Erasmus students, or any exchange students, that are headed for Ljubljana in 2016 / 2017 can introduce themselves and get to know one another before they arrive. Introduce yourself to the forum and ask any questions you may have about the city, the University, where to stay, where to eat, the prices and cost of living in Ljubljana, places for Erasmus parties or any other question you may habe. Here you can also find:

- The accommodation in Ljubljana
- Other students that are looking for accommodation
- Students jobs in Ljubljana
- The general forum for Ljubljana
- The blog Erasmus Ljubljana
- What to see in Ljubljana, Erasmus party, where to eat
- Erasmus experiences in Ljubljana
- People who have been, are and will be in Ljubljana
- A photo gallery of Ljubljana
- The map and weather in Ljubljana
- The universities in Ljubljana

Warning! If you want to advertise an accommodation or you are looking for one... the forum is not the place for doing that. In order to advertise your accommodation in Ljubljana or in order to find roommates don’t use this forum, go to the accommodation section of Ljubljana.

Livin' la vida Erasmus!