

**University "Goce Delchev" Stip
Faculty of Medical Sciences**



**ELABORATE
for compliance and accreditation of study programs in
RADIOPHARMACY**

August, 2014 година

Stip

Elaborate of second cycle of studies

CURRICULUM - RADIOPHARMACY

Faculty of Medical Science at the University "Goce Delchev" Stip

Study program: second cycle, RADIOPHARMACY

2 years, 120 ECTS

Diploma: Master of Radiopharmacy (NQF VIIB)

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	of Macedonia and the Interuniversity Conference of Macedonia (Skopje- Bitola, September 2002).	
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1. Chart of the higher education institution

The name of higher education institution	Goce Delcev University
Place	Bul. Krste Misirkov 10A P.Box 201 2000 Stip Republic of Macedonia
Identification number of the institution for higher education	4064682
Code of the activity of the institution for higher education	85.42 - higher education
Type of the institution for higher education	Public institution
Data of founder	Assembly of the Republic of Macedonia Official Gazette of RM No.40/07 and 81/08
Data of the last accreditation	
Study and research areas for which accreditation is obtained	FACULTY OF LAW (Social Sciences) First cycle studies <u>Judicial Course</u> (Since the Founding Committee) No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007 <u>Public Administration</u> (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Applied policy and diplomacy (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Journalism and Public relations (PR)

SI.12 19.06.2009

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Studies for Legal Affair (three years study)
No. 12-212.241 / 3 of 21.09.2012

Applied policy and diplomacy

(three years / four years study)

No. 12-212.241 / 3 of 21.09.2012

Journalism and Public Relations

(three years / four years study)

No.12-212.241 / 3 of 21.09.2012

Studies for Legal Affair

(modules: Administrative Law, International Law and International Relations, Criminal Law, Business Law, Civil Law, Financial Law) (four years study)

No.12-212.241 / 3 of 21.09.2012

Postgraduate Studies (Second Cycle)

Judicial Course (one year / two years)

SI.12 of 03.09.2009

Public Administration (one year/ two years)

SI.12 of 03.09.2009

Applied policy and diplomacy (one year/two years)

SI.12 of 03.09.2009

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Applied policy and diplomacy (one year / two years)

No.12-212, 241/3 of 09.21.2012

Public Administration (one year/ two years)

No. 12-212, 241/3 of 09.21.2012

Judicial Course (one year/two years)

No.12-212, 241/3 of 09.21.2012

Communication Management and Public Relations (one year/ two years)

No.12-212, 241/3 of 09.21.2012

Massive Communication and Media

Management (one year / two years)

No.12-212, 241/3 of 09.21.2012

FACULTY OF ECONOMICS

(Social Sciences)

First cycle studies

International Economics (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and No. 12-5712/1 from 12/07/2007

Financial Management

Sl.12 of 17.03.2009

Health Management (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and No. 12-5712/1 from 12/07/2007

Accounting, Finance and Auditing

No. 12-21/1-4 from 27/02/2012

Banking, Finance and Insurance

No. 12-21/2-3 from 13/03/2012

Management and Entrepreneurship

No. 12-21/3-3 from 13/03/2012

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International Economics

No. 12-214/3 from 11.13.2012

Health Management

No. 12-214/3 from 11.13.2012

Financial Management

No .12-214/3 from 11.13.2012

Accounting, Finance and Auditing

No. 12-214/3 from 11.13.2012

Banking , Finance and Insurance

No.12-214/3 from 11.13.2012

Management and Entrepreneurship

No . 12-214/3 from 11.13.2012

Postgraduate Studies (Second Cycle):

MBA - Management (one year /two years)

SI.12 of 10.02.2009

Health management (one year)

SI.12 of 03.09.2009

Economy of the European Union (one year)

SI.12 03.09.2009

.....

Economy of the European Union (one year)

No.12-236/3 from 11.13.2012

Health Management (one year)

No.12-236/3 from 11.13.2012

MBA - Management (one year/two years)

No. 12-236/3 from 11.13.2012

Financial Reporting and Auditing (one year)

No. 12-236/3 from 11.13.2012

Finance and Banking (one year)

No. 12-236/3 from 11.13.2012

FACULTY OF AGRICULTURE

(Biotechnical sciences)

First cycle studies

General Course (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1
from 12/07/2007

Processing of agricultural products (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1
from 12/07/2007

Integrated agricultural production (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1
from 12/07/2007

Agro management (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and No. 12-5712/1 from 12/07/2007

Oenology

No. 12-77/5 from 10.12.2010

Viticulture

No.12 -77 /4 10.12.2010

Rural Development

No.12 -77 /3 of 10.12.2010

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Agro management (four years)

No. 12-220 / 2 09/10/2012

Gardening (four years)

No. 12-220 / 2 09/10/2012

Oenology (four years)

No. 12-220 / 2 09/10/2012

Viticulture (four years)

No. 12-220 / 2 09/10/2012

Teaching Course (four years)

No. 12-220 / 2 09/10/2012

Fitomedicine (four years)

No. 12-220 / 2 09/10/2012

	<p><u>Processing of animal products</u> (four years) No. 12-220 / 2 09/10/2012</p> <p><u>Crops production</u> (four years) No. 12-220 / 2 09/10/2012</p> <p><u>Rural development</u> (four years) No. 12-220 / 2 09/10/2012</p> <p><u>General Course</u> (three-year) No. 12-220 / 2 09/10/2012</p> <p><u>Rural Tourism</u> (three years/four years) (joint study program with the Faculty of Tourism and Business Logistic) No. 12-34 / 2 5.4 2013 and No. 12-34/3 from 04/05/2012</p> <p>Postgraduate Studies (Second Cycle):</p> <p><u>Biotechnology, Genetics and Selection</u> (two years) SI.12 of 10.02.2009</p> <p><u>Plant protection</u> (two years) SI.12 of 10.02.2009</p> <p><u>Processing and control of agricultural products</u> (two years) SI.12 of 10.02.2009</p>
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	<p><u>Crop production</u> (two-years) SI.12 of 10.02.2009</p> <p><u>Oenology</u> (two years) No. 12-73/4 from 22.10.2010</p> <p><u>Viticulture</u> (two years) No. 12-78/5 from 22.10.2010</p> <p><u>Rural development</u> (two years) No. 12-78/6 from 22.10.2010</p> <p><u>Rural tourism</u> (two years) No. 12-78/7 from 22.10.2010</p> <p><u>Advisory and technical support to rural development</u> (two years) No. 12-78/8 from 22.10.2010 </p> <p><u>Oenology</u> (two years) No. 12-238 / 2 17/12/2012</p> <p><u>Viticulture</u> (two years) No. 12-238/2 from 12.17.2012</p> <p><u>Processing and control of agricultural products</u> (two years) no. 12-238/2 from 12.17.2012</p> <p><u>Fitomedicine</u> (two years) No.12 -238 /2 17/12/2012</p>
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Biotechnology , Genetics and Selection

(two years)

No. 12-238/2 from 12.17.2012

Crops production (two years)

No. 12-238/2 from 12.17.2012

Third cycle studies

Plants protection

No. 12-130/5 from 04.03.2011

Plant production

No. 12-130/4 from 04.03.2011

FACULTY OF COMPUTER SCIENCES

(Technical -Technological and Natural Sciences and Mathematics)

First cycle studies

Computer science (Since the Founding Committee)

No. 12-4323/2 of 11.6.2007 and No. 12-5712/1 from 12/07/2007

Business Informatics

No. 12-50/2 from 29.07.2010

.....
Computer science (three years)

No. 12-221/2 from 10.09.2012

	<p><u>Business Informatics</u> (three years) no. 12-221/2 from 10.09.2012</p> <p><u>Computer science -Teaching Course</u> (four years) No. 12-221/2 from 10.09.2012</p> <p><u>Computer Science</u> (four years) No. 12-221/2 from 10.09.2012</p> <p><u>Mathematics - Teaching Course</u> (four years) No. 12-221/2 from 10.09.2012</p> <p><u>Mathematics</u> (four years) No. 12-221/2 from 10.09.2012</p> <p><u>Computer Engineering</u> (four years) No. 12-221/2 from 10.09.2012</p> <p>Postgraduate Studies (Second Cycle):</p> <p><u>Theoretical Computer Science</u> (two years) SI.12 of 06.07.2009</p> <p><u>Software Engineering</u> (two years) SI.12 of 06.07.2009</p> <p><u>Software Engineering</u> (one year) No. 12-130/3 from 22.10.2010</p> <p><u>Information Systems and Technology</u></p>
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	<p>(two-year)</p> <p>SI.12 of 06.07.2009</p> <p><u>Information Systems and Technology</u></p> <p>(one year)</p> <p>No. 12-130/3 from 22.10.2010</p> <p><u>Accrual accounting and engineering analysis</u> (one year/two years)</p> <p>No. 12-130/3 from 22.10.2010</p> <p><u>Mathematical Sciences</u> (one year/two years)</p> <p>No. 12-130/3 from 22.10.2010</p> <p>.....</p> <p><u>Artificial Intelligence and Robotics</u> (one year)</p> <p>No. 12-239/1-4 from 01/24/2013</p> <p><u>Software Engineering</u> (one year)</p> <p>No. 12-239/1-4 from 01/24/2013</p> <p><u>Intelligent Web Technologies</u> (one year)</p> <p>No. 12-239/1-4 from 01/24/2013</p> <p><u>Communication Technologies and Signal Processing</u> (one year)</p> <p>No. 12-239/1-4 from 01/24/2013</p> <p><u>Information systems</u> (one year)</p> <p>No. 12-239/1-4 from 01/24/2013</p> <p><u>Applied Mathematics</u> (one year)</p>
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No. 12-239/1-4 from 01/24/2013

Financial and Actuarial Mathematics

(one year/two years)

No. 12-239/1-4 from 01/24/2013

Mathematics-IT Education (one year/two years)

No. 12-239/1-4 from 01/24/2013

Mathematics (one year/two years)

No. 12-239/1-4 from 01/24/2013

Computer Science (two years)

No. 12-239/1-4 from 01/24/2013

Third cycle studies

Computer Engineering and Informatics

No. 12-130/7 from 04.03.2011

FACULTY OF EDUCATION SCIENCES

(Social Sciences)

First cycle studies

Preschool education

(old program from the period of the University St Cyril and Methodious - 2007)

Elementary school

(old program from the period of the University St Cyril and Methodious - 2007)

History and Archaeology

No. 12-49/2 from 29.07.2010

.....
Elementary school

No. 12-217/2 from 10.09.2012

Preschool education

No. 12-217/2 from 10.09.2012

Pedagogy

No. 12-217/2 from 10.09.2012

Social pedagogy

No. 12-217/2 from 10.09.2012

Educational policy

No. 12-217/2 from 10.09.2012

History and archeology (Teaching Course)

No. 15-217/3-2 from 20/12/2012

History

No. 12-361/2 from 12.17.2012

Archaeology

No. 12-361/1 from 12.17.2012

Postgraduate Studies (Second Cycle):

Methodology of teaching religious education
(one year specialized studies)

No. 12-11/3 from 01/10/2009

Preschool care and education (two years)

No. From 12 of 03.09.2009

Preschool care and education

(one year specialized studies)

No. Official Gazette 12 of 03.09.2009

Study Program in Education Sciences -
acquiring teaching skills for subject teachers
(one-year specialized studies)

No. from 12 of 03.09.2009

School Pedagogy

No. 12 of 03.09.2009

Didactics

No. 12 of 03.09.2009

Management in education and educational
policy

No. 12 of 03.09.2009

Social pedagogy

	<p>No. 12 of 03.09.2009</p> <p>.....</p> <p><u>Preschool Pedagogy</u> (one year) No. 12-247/1-1 from 05/11/2012</p> <p><u>School pedagogy</u> (one year) No. 12-247/1-1 from 05/11/2012</p> <p><u>Management in education and education policy</u> (one year) No. 12-247/1-1 from 05/11/2012</p> <p><u>Social pedagogy</u> (one year) No. 12-247/1-1 from 05/11/2012</p> <p><u>Didactics and methodology</u> (one year) No. 12-247/1-1 from 05/11/2012</p> <p><u>Methodology in teaching religious education</u> (one year specialty) No. 12-247/1-1 of 11/5/2012</p> <p><u>Preschool education</u> (Care and Education in Drama, Physical and Health care and education , Care and Education in Art , Care and Education in Music, The educational work of the natural and social environment , educational mathematics work, educational work in Culture speech) (one year specialty) No. 12-247/1-1 from 05/11/2012</p>
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Acquisition of teaching skills for teachers
(one year specialty)

No. 12-247/1-1 from 05/11/2012

**FACULTY OF NATURAL AND TECHNICAL
SCIENCES**

(Technical - technological and natural -
mathematical sciences)

First cycle studies

Mining (surface mining, underground mining
and mineral technology)

No. 12-21/1-1 of 19.04.2011

Geology (Geology and Geophysics, Petrologija,
mineralogy and geochemistry, Engineering
geology and hydrogeology, Deposits of
minerals)

No. 12-21/2-1 of 19.04.2011

Geography

No. SI.12 19.06.2009

Architecture and design

No. SI.12 of 09.02.2007

Engineering Environment

No. 12-21/3-1 of 19.04.2011

Civil engineering

	<p>SI.12 of 19.06.2009</p> <p><u>Geomechanics</u></p> <p>No.12-21/5-1 of 19.04.2011</p> <p><u>Logostika , Industrial Management</u></p> <p>No. 12-21/4-1 of 19.04.2011</p> <p><u>Biology</u></p> <p>No.12 of 19.06.2009</p> <p><u>Mathematics</u></p> <p>No.12 of 19.06.2009</p> <p><u>Chemistry</u></p> <p>No. SI.12 of 19.06.2009</p> <p><u>Computer design</u></p> <p>No. 12-79/5 from 04/05/2012</p> <p>.....</p> <p><u>Industrial Logistics</u> (three years)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Civil engineering</u> (modules: Transport infrastructure and geomechanics) (three-year)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Architecture and Design</u> (modules: Landscape Architecture, Design and Technologies of Furniture and Interior Design) (three-year)</p>
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	<p>No. 12-219/2 from 10.09.2012</p> <p>Mining (modules: Surface Mining, Underground Mining and Mineral Technology)</p> <p>(four years)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Geology</u> (modules : Geology and Geophysics , Petrologija, mineralogy and geochemistry, engineering geology and hydrogeology, Deposits of Mineral Resources)</p> <p>(four years)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Geography</u> (four years)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Engineering Environment</u> (four years)</p> <p>No. 12-219/2 from 10.09.2012</p> <p><u>Biology</u> (four years)</p> <p>no. 12-219/2 from 10.09.2012</p> <p>Postgraduate Studies (Second Cycle):</p> <p><u>Petrology, mineralogy and geochemistry</u></p> <p>No. 12-20/5-1 from 19/04/2011</p> <p><u>Deposits of minerals</u></p> <p>No. 12-20/6-1 from 19/04/2011</p>
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	<p><u>Geology and Geophysics</u> no. 12-20/7-1 from 19/04/2011</p> <p><u>Hydrogeology</u> No. 12 of 19.06.2009</p> <p><u>Geomechanics (one year/two years)</u> No. 12 of 19.06.2009</p> <p><u>Mineral Technology</u> No. 12-20/3-1 from 19/04/2011</p> <p><u>Engineering Environment (one year)</u> No. 12-20/4-1 from 19/04/2011</p> <p><u>Engineering Environment (two years)</u> No. 17.03.2009</p> <p>Surface Mining No. 12-20/1-1 from 19/04/2011</p> <p><u>Underground Mining</u> No. 12-20/2-1 from 19/04/2011</p> <p><u>Graphics and Design</u> No. SI.12 of 17.03.2009</p> <p><u>Engineering of working environment</u> No. 12-20/8 from 04/19/2011</p> <p><u>Industrial Logistics</u></p>
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	<p>No. 12 of 17.03.2009</p> <p>.....</p> <p><u>Mining</u> (modules: Surface Mining , Underground Mining, Mineral Technology)</p> <p>(one year)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Geology</u> (modules : Geology and Geophysics , Petrology, Mineralogy and Geochemistry, Engineering, geology and hydrogeology, Deposits of Mineral Resources)</p> <p>(one year)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Industrial Logistics</u> (two years)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Engineering of Living and Working Environment</u> (modules: Engineering work environment Engineering Environment) (one year)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Engineering Environment</u> (two years)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Civil engineering</u> (modules: Transport Infrastructure, geomechanics (two years) geomechanics (one year)</p> <p>No. 12-246/1-2 from 11/13/2012</p> <p><u>Architecture and Design</u> (Landscape Architecture (two years)</p>
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Design and Technologies of Furniture and Interior Design (two years)

No. 12-246/1-2 from 13/11/2012

Third cycle studies

Science of hydrology and land

No. 12-130/6 from 04.03.2011

Mining

No. 12-130/8 from 04.03.2011

Applied Geology and Geophysics

No. 12-130/9 from 04.03.2011

Environment

No. 12-130/11 of 04.03.2011

FACULTY OF MUSIC ART

(Science of Humanities)

First cycle studies

Theory of music and music pedagogy

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Jazz Studies

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Ethnocoology

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Vocal - instrumental section (piano, brass, string, percussion)

No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007

Solo singing

No. Official . 12 of 14.10.2008

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Theory of music and music pedagogy (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Musician Artist (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Piano (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Solo singing (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Ethnocoology (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Jazz studies (four years)

No. 12-244.218 / 1-1 by 30/10/2012

Classic painting

No. 12-271/4 from 21.09.2012

Postgraduate Studies (Second Cycle):

Jazz Studies

No. 12-129/2 from 02.25.2010

Solo singing

No. 12-129/5 from 02.25.2010

Piano (solo interpretation)

No. 12-129/7 from 02.25.2010

Theory of music and music pedagogy

No. 12-129/6 from 02.25.2010

Methodology of teaching piano

No. 12-129/5 from 02.25.2010

Ethnology

No. 12-129/3 from 02.25.2010

Main instrument from Vocal - instrumental section (flute, oboe, clarinet, bassoon, horn, trombone, tuba, violin, viola, cello, double bass, harp (solo interpretation)

No. 12-129/4 from 02.25.2010

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Theory of music and music pedagogy (one year)

No. 12-244.218 / 1-1 by 30/10/2012

Musician artist (one year)

No. 12-244.218 / 1-1 by 30/10/2012

Piano (one year)

No. 12-244.218 / 1-1 by 30/10/2012

Solo singing (one year)

No. 12-244.218 / 1-1 by 30/10/2012

Ethnocoerology (one year)

No. 12-244.218 / 1-1 by 30/10/2012

Jazz Studies (one year)

No. 12-244.218 / 1-1 by 30/10/2012

FACULTY OF MEDICAL SCIENCES

(Medical Science and Health)

First cycle studies

General Medicine (Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University No. 81 from 07.07.2008)

Dentistry

No. 12 from 26.08.2009

Pharmacy

No. 12 of 19.06.2009

	<p><u>Nurse/Medical Technician</u>(professional studies) No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007</p> <p><u>Medicinal laboratory Technologist</u> (professional studies) No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007</p> <p><u>Physiotherapist Technologist</u> (professional studies) No. 12-4323/2 of 11.6.2007 and no. 12-5712/1 from 12/07/2007</p> <p><u>Optometry and Optics Technologist</u> (professional studies) No. 12-84/3 from 19.11.2009</p> <p><u>Protetic Dental Technician</u> (professional studies) no. 12 26.08.2009</p> <p><u>Obstetrics</u> (professional studies) no. 12-31/3 from 10/07/2011</p> <p>Postgraduate Studies (professional specialties)</p> <p><u>Nurse/Medical Technician</u> – professional specialties (intensive care, obstetrics and gynecology, instrument technicians, anesteticarka, nursing sister and family, mental health, prevention of infectious and noninfectious diseases) No. 12 of 10.02.2009</p>
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Laboratory for medical laboratory diagnostics - professional specialties (transfuzionist, chemical and biochemical laboratory, Institute of Public Health)

No 12 of 10.02.2009

Physiotherapist - professional specialties (refleksotherapy and acupressure, Kynesitherapy , Rehabilitation of children and correction of physical deformities)

No. 12 of 10.02.2009

FACULTY OF ELECTRICAL ENGINEERING

(Technical and Technological Sciences)

First cycle studies

Systems for automatic control (three years/ four years) - (Since the Founding Committee-04/05/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

Renewable energy sources (three years)

no. 12-31/4 from 13.10.2011

Renewable sources of energy (four years)

No. 12-31/5 from 13.10.2011

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Systems for automatic control (three years/ four)

No. 12-215/1-2 , 2-2 by 16/11/2012

Renewable energy sources (three years /four years)

No. 12-215/1-2 , 2-2 by 16/11/2012

Postgraduate Studies (Second Cycle):

Automate processes

No. 12-91/2 from 04/05/2012

Automation and processes (one year/ two years)

No. 12-237/1-3 from 03/06/2013

FACULTY OF PHYLOLOGY

(Humanities Sciences)

First cycle studies

Macedonian Language and Literature (Course for Teaching) – (Since the Founding Committee from 04/05/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

Macedonian Language and Literature (Applied Course) - Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

English Language and Literature (Course for Teaching) - (Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

English Language and Literature (Translation and Interpretation) - (Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

German Language and Literature (Course for Teaching) - (Since the Founding Committee from 04/05/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

German Language and Literature (Translation and Interpretation) - (Since the Founding Committee from 04/05/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

Turkish Language and Literature (Course for Teaching)

No. 12-66/2 from 20.12.2011

Turkish Language and Literature (Translation and Interpretation)

No. 12-66/2 from 20.12.2011

French Language and Literature (Course for Teaching)

No. 12-66/3 20.12.2011

French Language and Literature (Translation and Interpretation)

	<p>no. 12-66/3 from 20.12.2011</p> <p><u>Italian Language and Literature</u> (Course for Teaching)</p> <p>No. 12-66/4 from 20.12.2011</p> <p><u>Italian Language and Literature</u> (Translation and interpretation)</p> <p>No. 12-66/4 from 20.12.2011</p> <p>.....</p> <p><u>Macedonian Language and Literature</u> (Course for Teaching) (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p> <p><u>Macedonian Language and Literature</u> (Applied Course) (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p> <p><u>English Language and Literature</u> (Course for Teaching) - (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p> <p><u>English Language and Literature</u> (Translation and Interpretation) (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p> <p><u>German Language and Literature</u> (Course for Teaching) (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p> <p><u>German Language and Literature</u> (Translation and Interpretation) (four years)</p> <p>No. 12-213/1-2 from 11/28/2012</p>
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	<p><u>Turkish Language and Literature</u> (Course for Teaching) (four years) No. 12-213/1-2 from 11/28/2012</p> <p>Turkish Language and Literature (Translation and Interpretation) (four years) No. 12-213/1-2 from 11/28/2012</p> <p>French Language and Literature (Course for Teaching) (four years) No. 12-213/1-2 from 11/28/2012</p> <p><u>French Language and Literature</u> (Translation and Interpretation) (four years) No. 12-213/1-2 from 11/28/2012</p> <p><u>Italian Language and Literature</u> (Course for Teaching) (four years) No. 12-213/1-2 from 11/28/2012</p> <p><u>Italian Language and Literature</u> (Translation and Interpretation) (four years) No. 12-213/1-2 from 11/28/2012</p> <p>Postgraduate Studies (Second Cycle):</p> <p><u>Macedonian language and literature</u> - course: Macedonian literature No. 12-243/2 from 10.01.2012</p> <p><u>Macedonian language and literature</u> - course: Macedonian No. 12-243/2 from 10.01.2012</p>
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	<p><u>Macedonian language and literature</u> - course: Methodology of teaching the Macedonian language and literature</p> <p>No. 12-243/2 from 10.01.2012</p> <p><u>English Language and Literature</u> - course: English Literature</p> <p>No. 12-243/2 from 10.01.2012</p> <p><u>English Language and Literature</u> - course: English</p> <p>No. 12-243/2 from 10.01.2012</p> <p><u>English Language and Literature</u> - course: Methodology of Teaching English Language and Literature,</p> <p>No. 12-243/2 from 10.01.2012</p> <p><u>German Language and Literature</u> – course: German Literature</p> <p>no. 12-243/2 from 10.01.2012</p> <p><u>German Language and Literature</u> – course: German</p> <p>no. 12-243/2 from 10.01.2012</p> <p><u>German Language and Literature</u> – course: Methodology of teaching German language and literature</p> <p>no. 12-243/2 from 10.01.2012</p> <p><u>Turkish Language and Literature</u> – course: Turkish literature</p> <p>no. 12-243/2 from 10.01.2012</p>
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Turkish Language and Literature – course:

Turkish language

No. 12-243/2 from 10.01.2012

**FACULTY OF TOURISM AND BUSINESS
LOGISTICS**

(Social Sciences)

First cycle studies

Tourism - (Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University)

No. 81 of 07.07.2008

Business logistics - (Since the Founding Committee from 04/05/2008 and Amendments to the Law on the Establishment of University No. 81 of 07.07.2008

Gastronomy , Nutrition and Dietetics

No. 12 from 26.08.2009

Hotel - Restaurant Course

No. 12-117/3 from 28.06.2010

.....

Tourism (three years/four years)

No. 12-222.245 / 2 10/01/2012

Business Logistics (three years / four years) No.
12-222.245 / 2 10/01/2012

Gastronomy , Nutrition and Dietetics (three
years/fouryears)

No. 12-222.245 / 2 10/01/2012

Hotel – Restaurant Course (three years/four
years)

No. 12-222.245 / 2 10/01/2012

Postgraduate Studies (Second Cycle):

International tourism

No. 12-117/2 from 05.28.2010

Business logistics (one year / two years)

No. 12-222.245 / 2 10/01/2012

International tourism (one year / two years)

No. 12-222.245 / 2 10/01/2012

**FACULTY FOR TECHNOLOGY AND
INDUSTRIAL ENGINEERING**

(Technical and Technological Sciences)

First cycle studies

Textile Engineering - (Since the Founding Committee from 05/04/2008 and Amendments to the Law on the Establishment of University) No. 81 of 07.07.2008

.....
New technologies and materials (three years / four years)

No. 12-211/2 from 10.09.2012

Textile Design and Management (three years / four years)

No. 12-211/2 from 10.09.2012

Textile Engineering (three years /four years)
No. 12-211/2 from 10.09.2012

Postgraduate Studies (Second Cycle):

Industrial Design Textile

No. 12-91/3 from 04/05/2012

Industrial design textiles (one year /two years)

No. 12-242/1-3 from 03/06/2013

FACULTY FOR MECHANICAL ENGINEERING

(Technical and Technological Sciences)

First cycle studies

	<p><u>Production machinery</u> - (Since the Founding Committee from 04/05/2008 and Amendments to the Law on the Establishment of University No. 81 of 07.07.2008</p> <p><u>Transport and Logistics Organization</u></p> <p>No. 12-55/2 from 29/07/2010</p> <p>.....</p> <p>Transport and Logistics Organization (three years/four years)</p> <p>No. 42-216/2 from 10.09.2012</p> <p>Production engineering (three years/four years)</p> <p>No. 42-216/2 from 10.09.2012</p> <p>Postgraduate Studies (Second Cycle):</p> <p><u>Design of production systems</u> (one year)</p> <p>No. 12-240/1 from 21.09.2012</p>
<p>Units within the higher education institution</p>	<p>FACULTIES</p> <p>Faculty of Law</p> <p>Faculty of Economics</p> <p>Faculty of Agriculture</p> <p>Faculty of Computer Sciences</p>

	<p>Faculty of Education Sciences</p> <p>Faculty of Natural and Technical Sciences</p> <p>Academy of Music</p> <p>Faculty of Medical Sciences</p> <p>Faculty of Electrical Engineering</p> <p>Faculty of Philology</p> <p>Faculty of Tourism and Business Logistics</p> <p>Faculty of Technology and Technical Sciences</p> <p>Faculty of Mechanical Engineering</p> <p>Academy of Art</p> <p>Academy of Film</p> <p>CENTERS</p> <p>Center for interuniversity cooperation</p> <p>Center for Lifelong Learning</p> <p>Center for e-learning</p> <p>Center for Quality Assurance</p>
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	<p>Centre for Public Relations</p> <p>University Cultural Center</p> <p>University Sports Centre</p> <p>IT Center</p> <p>Center for Career Development</p> <p>INSTITUTES</p> <p>Institute of Archaeology and History</p> <p>Institute of gastronomy, nutrition and dietetics</p> <p>OBSERVATORY</p> <p>Geomagnetic observatory</p>
Data for facilities dedicated for teaching and research	Attachment Annex 2
Data for the equipment for teaching and research	Attachment Annex 1
Number of students for obtained accreditation	16,000
Number of students (first time inscribed)	3,500
Number of persons involved in teaching and research, scientific and teaching positions	149

Number of persons with associate titles	133
Internal mechanisms for quality control and security system	Center for quality assurance including all mechanisms necessary for internal evaluation
Data from the last external evaluation of the institution	Not yet realized external evaluation

1a. General qualifications descriptors for each cycle in accordance with the Regulation on the National Framework for Higher Education Qualifications

General descriptors of qualifications I cycle the Faculty of Medical Sciences in accordance with the Regulation on the National Qualifications Framework, Fig. Journal of R. Macedonia no. 154/10:

Type of Descriptor	Description
Knowledge and understanding	<ul style="list-style-type: none"> • breadth of clinical activities for which support is required from the radiopharmacy service • current legislative requirements, standards, professional guidance and related scientific and technical data. this will include receipt, storage, handling and disposal of radioactive materials, manufacture of sterile radioactive medicinal products, administration of radioactive materials to humans, and transport of radioactive materials • requirements for manufacturing of investigational medicinal products for clinical trials • principles, use, capabilities and limitations of existing and planned radiopharmacy facilities and equipment • risks associated with the provision of a radiopharmacy service and associated control measures • principles of quality assurance, clinical and research governance and quality management systems • principles of operation and limitations of equipment
Applying knowledge and understanding	<ul style="list-style-type: none"> • identify and consult with relevant stakeholders to identify local or regional clinical requirements for radiopharmacy services • identify professional, scientific and technical support required to meet the identified clinical need consistent with legislative requirements and professional guidance • confirm with relevant experts the current relevant legislative requirements for existing and planned radiopharmacy facilities and their use
Ability for evaluation	<ul style="list-style-type: none"> • identify risk factors associated with radiopharmacy services and their corresponding control measures • specify the training needs to comply with legislative requirements • specify resources and capacity required to deliver professional, scientific and technical and legislative services for radiopharmacy • specify methods and measures for quality assurance, clinical and research governance and audit for radiopharmacy services • identify, interpret, and implement national and international legislation and guidelines into local clinical practice and standard operating procedures • identify high risk procedures and obtain organisational approval in accordance with current legislation and organisational protocols

Communication skills	<ul style="list-style-type: none"> • Demonstrate ability to communicate effectively linking concepts, problems and solutions in the field of computer science. • Demonstrate the ability to effectively work independently or as a productive member of the team who may be multidisciplinary. • Argue the position and results of operations. • Demonstrate skills in taking personal responsibility for communication in the area they operate.
Learning skills	<ul style="list-style-type: none"> • Easy to adapt to learning for radiopharmaceuticas or a new radiopharmaceuticals and method of synthesis, production and control • Demonstrate awareness of new technologies and the ability to evaluate and use of modern development radiopharmaceuticals. • use information technology for distance and e-learning. • understand the need and have the capability of continuing professional development through the use of technical and scientific literature, professional training, continuing formal education, membership in professional organizations, etc..

1b. Specific qualifications descriptors that determine learning outcomes for individual study program in accordance with the Regulation on the National Framework for higher education qualifications

Study Programme:

Radiopharmacy, the second cycle, two years of study (120 ECTS)

Specific descriptors of qualifications for study program

Type of Descripor	Description
Knowledge and understanding	<ul style="list-style-type: none"> • extent clinical activities for which support is required from the radiopharmacy – production, labeling, quality control • current legislative requirements, standards, professional guidance and related scientific and technical data. this will include receipt, storage, handling and disposal of radioactive materials, manufacture of sterile radioactive medicinal products, administration of radioactive materials to humans, and transport of radioactive materials • requirements for manufacturing of investigational medicinal products for clinical trials • principles, use, capabilities and limitations of existing and planned radiopharmacy facilities and equipment • risks associated with the provision of a radiopharmacy service and associated control measures • principles of quality assurance, clinical and research governance and quality management systems • principles of operation and limitations of equipment

Applying knowledge and understanding	<ul style="list-style-type: none"> • identify and consult with relevant stakeholders to identify local or regional clinical requirements for radiopharmacy services • identify professional, scientific and technical support required to meet the identified clinical need consistent with legislative requirements and professional guidance • confirm with relevant experts the current relevant legislative requirements for existing and planned radiopharmacy facilities and their use
Ability for evaluation	<ul style="list-style-type: none"> • identify risk factors associated with radiopharmacy services and their corresponding control measures • specify the training needs to comply with legislative requirements • specify resources and capacity required to deliver professional, scientific and technical and legislative services for radiopharmacy • specify methods and measures for quality assurance, clinical and research governance and audit for radiopharmacy services • identify, interpret, and implement national and international legislation and guidelines into local clinical practice and standard operating procedures • identify high risk procedures and obtain organisational approval in accordance with current legislation and organisational protocols
Communication skills	<ul style="list-style-type: none"> • Demonstrate ability to communicate effectively linking concepts, problems and solutions in the field of computer science. • Demonstrate the ability to effectively work independently or as a productive member of the team who may be multidisciplinary. • Argue the position and results of operations. • Demonstrate skills in taking personal responsibility for communication in the area they operate.
Learning skills	<ul style="list-style-type: none"> • Easy to adapt to learning for radiopharmaceuticas or a new radiopharmaceuticas and method of synthesis, production and control • Demonstrate awareness of new technologies and the ability to evaluate and use of modern development radiopharmaceuticas. • use information technology for distance and e-learning. • understand the need and have the capability of continuing professional development through the use of technical and scientific literature, professional training, continuing formal education, membership in professional organizations, etc..

2. Decision to adopt the study program by the Academic Council of Scientific unit or school board of the Independent High School or the Scientific Council of the scientific institution

The decision to adopt the curricula of Scientific Council of the Faculty of Medical Sciences is given in Annex no. 1a.

3. Decision to adopt the program of study Rector's Office or the University Senate Council or scientific institution

The decision to adopt the curriculum of the Rector's Office and the University Senate is given in Annex no. 1b.

4. Research area and field area, a part of the study program

The study program of the second cycle of the Faculty of Medical Sciences Fraskat's classification according to belong in the scientific research areas.

Research area: **Medical sciences (3)**

Scientific Research field: **Pharmacy (306)**

Scientific research area: **Other - Radiopharmacy (30707)**

In Table. 1 provides an overview of scientific research areas, areas and fields where they belong study program at the Faculty of Informatics.

Research area	Scientific Research field	Scientific research area
3. Medical Sciences	306. Pharmacy	30707. Radiopharmacy (other)

5. Type of study program (academic or vocational studies)

The study program of the first cycle belongs in academic studies. Instruction is organized as a study lasting two years valued 120 ECTS credits.

6. Level of education (second cycle)

The study program in Radiopharmacy is the second cycle. After a two years of education students have the option of continuing their education in some of the programs of the third cycle.

7. Purpose and justification for the study program

The study program in Radiopharmacy aims profiling of staff will be available to produce, label, control and manage radiopharmaceuticals and will be able to:

- to extent clinical activities for which support is required from the radiopharmacy – production, labeling, quality control
- current legislative requirements, standards, professional guidance and related scientific and technical data. this will include receipt, storage, handling and disposal of radioactive materials, manufacture of sterile radioactive medicinal products, administration of radioactive materials to humans, and transport of radioactive materials
- requirements for manufacturing of investigational medicinal products for clinical trials
- principles, use, capabilities and limitations of existing and planned radiopharmacy facilities and equipment
- risks associated with the provision of a radiopharmacy service and associated control measures
- principles of quality assurance, clinical and research governance and quality management systems
- principles of operation and limitations of equipment
- identify and consult with relevant stakeholders to identify local or regional clinical requirements for radiopharmacy services

- identify professional, scientific and technical support required to meet the identified clinical need consistent with legislative requirements and professional guidance
- confirm with relevant experts the current relevant legislative requirements for existing and planned radiopharmacy facilities and their use

These skills include knowledge and skills in three categories:

1. Specific knowledge and skills:

- Design opportunities for Radiopharmacy facilities including implementation of the Quality assurance program
- Production and synthesis of radionuclide and radiopharmaceuticals;
- Quality control of radiopharmaceuticals;

2. Basic knowledge and skills:

- Leadership and collaboration;
- Communication;
- Negotiations;
- Analytical and critical thinking skills including creativity and ethical considerations;
- Pharmaceutical and chemistry knowledge

3. Fundamentals of Radiopharmacy:

- General models of the area;
- Key specializations within the field;
- Evaluation of performance within the area;

A radiopharmacy is a branch of pharmaceuticals dealing with radioactive drugs. It is also the name of a registered facility which prepares and dispenses radioactive medications. A radiopharmacy also stores and disposes of radioactive materials.

Radiopharmacy is a branch of nuclear medicine which deals with all aspects of radioactive pharmaceuticals including compounding and quality control. Compounding is combining key ingredients to form a drug. Typically a radiopharmacy has a specialized lab to manufacture, label and store each different radioactive drug.

A radiopharmacist is a pharmacist who specializes in radioactive prescription medications such as radiopharmaceuticals and radioisotopes. A radioisotope is the naturally occurring or artificially created radioactive form of an element. Radioisotopes can be used to help diagnose, explore and investigate, and treat certain disease processes. They are also utilized for medications employed for things like radioisotope scanning, a diagnostic procedure, or radiotherapy, a cancer treatment option.

Radiopharmaceuticals are drug substances containing radioactive atoms that can be safely used on humans. Its primary use is for diagnostic purposes, or to help identify certain problems or conditions inside the body. However, radiopharmaceuticals are sometimes used as a form of therapy or treatment for specific ailments.

After completion of studies "Radiopharmacy" students will be able to work in all spheres of the modern Radiopharmacy facilities and also in the conventional hospital Radiopharmacy or small departments. They will have competences in production, labeling and quality control of radiopharmaceuticals (SPECT and PAT), including capability of QA.

This program creates academic staff, who all sectors recognize how fundamentally important for their successful development.

8. Age and duration of semesters of study program

The study program may enroll candidates according to the conditions stipulated by the Law on Higher Education and the general regulations of the University. Curricula suited to academic studies and last two years (four semesters).

The study program contains items that can be grouped in five categories:

- Knowledge of chemistry, pharmacy, physics, databases, computer networks, information systems
- Knowledge of pharmaceutical chemistry, production of radioisotope and radiopharmaceuticals, quality control, clinical application
- Knowledge of current regulation in Radiopharmacy, base of GMP, GRPM, QA and design
- Practical work dedicated to be able to work in practice concerning in all field of Radiopharmacy
- Master thesis who will provide knowledge to apply science in research area of radiopharmacy including clinical and preclinical investigation

9. ECTS credits that the student acquires

The student with the completion of a two years study acquired 120 ECTS credits.

In all study programs at the Faculty Medical Sciences mandatory items carry 60% of the credits, elective subjects of unit (faculty) carry 30% of the credits, and elective subjects from the list of items the university 10% of the credits.

10. Way of funding, and private higher education institutions and scientific proof of financial assurance provided quality study program

Funding for the second cycle of studies at the Faculty of Medical Sciences is done on the principle of self-financing of studies by students. Some funds may be available through other sources of funding as:

- Funds allocated to the candidates by the university;
- Fees by state funds and by funding agencies;
- Funds provided through funds of the European Union, industry, foundations, etc..

The method of funding and fees paid by students for educational and administrative services to the higher education institution is governed by Rules for postgraduate studies in compliance with the Law on Higher Education.

11. Conditions for enrollment

The conditions and criteria for admission of new students at 2-years studies of the second cycle is regulated by competition for enrollment of new students, which is issued each academic year. Enrollment studies are done on the basis of open competition, which publishes university according to the legislation.

The second cycle of university and professional studies under the Law on higher education can enroll a person who passed the state graduation exam or international. If the competition for enrollment of first cycle university and professional studies in the first enrollment period

does not appear sufficient number of candidates who meet these conditions, the right of entry may have persons who have passed the matriculation school or high school final exam after completion of adequate vocational secondary education in four years.

The criteria based on which the selection and election of candidates for admission are determined by the university. Also the university determines the state exam subjects that are of importance for the study programs. The subjects of the state graduation relevant enrollment studies are published as part of the public competition for enrollment and the website of the University.

Foreign nationals admitted to the studies under the same conditions as nationals of the Republic of Macedonia, but may, in accordance with decisions of the competent authorities or in accordance with the decisions of the University, they are required to pay part or full participation in the study. Admission meet the person who completed education abroad according to the appropriate degree program. The appropriateness of the study program is evaluated according to established procedures of the University in accordance with state authorities.

Competition despite the conditions and criteria for admission include: number of students, enforcement procedures, deadlines for applications, taking and recording.

12. Information on continuing education

After the second cycle of studies students can continue their education at all higher education institutions in the country and abroad who work in accordance with the Bologna Declaration and ECTS.

13. Fixed ratio between compulsory and optional subjects, with a list of required items, list of electives and defined way of selecting items

The study programs at the Faculty of Medical Sciences comply with the Law on Higher Education and the amendments to the Law on Higher Education (Official Gazette, No. 17/2011).

The curriculum mandatory items represent 60% of the total number of items provided with study programs. 30% of elective subjects from the list of departmental electives, and 10% of elective courses are selected from the list of university electives.

Proportion of subjects (60:30:10) is stored in each year as represented by the following scheme:

SYLLABUS OF THE RADIOPHARMACY MASTER PROGRAM

RADIOPHARMACY			
TWO YEARS STUDY PROGRAM			
120 EKTS			
	COURSE	CREDITS	ACTIVITIES
Basic (Applied) Pharmacy	Obligatory Theoretical Course	8	4+2+2
Radiopharmaceutical Chemistry	Obligatory Theoretical Course	8	4+2+2
Radioisotope production and radiopharmaceutical preparation	Obligatory Theoretical Course	8	4+2+2
Quality control of radiopharmaceuticals	Obligatory Theoretical Course	8	4+2+2
Nuclear Physics, Radiation Safety & Regulations	Obligatory Theoretical Course	6	3+2+1
Nuclear Medicine - aspects of clinical practice	Obligatory Theoretical Course	6	3+2+1
Radiopharmaceutical preparation - SPECT radiopharmaceuticals	Obligatory Practice	5	0+4+1
Radiopharmaceutical preparation - PET radiopharmaceuticals	Obligatory Practice	5	0+4+1
Radiopharmaceutical preparation - Therapeutic radiopharmaceuticals	Obligatory Practice	5	0+4+1
Operation of a GMP facility	Obligatory Practice	5	0+4+1
Quality control of radiopharmaceuticals	Obligatory Practice	5	0+4+1
Clinical application of radiopharmaceuticals /NM	Obligatory Practice	5	0+4+1
Optional Theoretical Course - Faculty/Department - Group 1	Optional Theoretical Course - Faculty/Department - Group 1	4	2+1+1
Optional Theoretical Course - Faculty/Department - Group 1	Optional Theoretical Course - Faculty/Department - Group 1	4	2+1+1
Optional Theoretical Course - Faculty/Department - Group 2	Optional Theoretical Course - Faculty/Department - Group 2	4	2+1+1
Optional Theoretical Course - Faculty/Department - Group 2	Optional Theoretical Course - Faculty/Department - Group 2	4	2+1+1
MASTER THESIS	MASTER THESIS	30	0+260+40

TOTAL NUMBER OF CREDITS

120

I SEMESTER	CREDITS		II SEMESTER	CREDITS
Basic (Applied) Pharmacy	8		Radioisotope production and Radiopharmaceutical preparation	8
Radiopharmaceutical Chemistry	8		Quality control of radiopharmaceuticals	8
Nuclear Physics, Radiation Safety & Regulations	6		Nuclear Medicine - aspects of clinical practice	6
Optional Theoretical Course - Faculty/Department - Group 1	4		Optional Theoretical Course - Faculty/Department - Group 2	4
Optional Theoretical Course - Faculty/Department - Group 1	4		Optional Theoretical Course - Faculty/Department - Group 2	4
Total number of credits	30		Total number of credits	30
III SEMESTER			IV SEMESTER	
Radiopharmaceutical preparation - SPECT radiopharmaceuticals	5		MASTER THESIS	30
Radiopharmaceutical preparation - PET radiopharmaceuticals	5			
Radiopharmaceutical preparation - Therapeutic radiopharmaceuticals	5			
Operation of a GMP facility	5			
Quality control of radiopharmaceuticals	5			
Clinical application of radiopharmaceuticals /NM	5			
Total number of credits	30		Total number of credits	30

14. Data provided space for the realization of the study program

For successful implementation of the curriculum Faculty of Medical Sciences has sufficient space for the realization of lectures, as laboratory and auditory exercises .

To carry out the study program is fully secured infrastructure parameters, spatial, technical - technological, laboratory and other resources necessary to deliver the instruction. Teaching is conducted in accordance with the recommendations of the accreditation committee in amphitheatres, classrooms and specialized radiopharmacy laboratory granted by the Government of Republic of Macedonia and is under process of National Accreditation (<http://www.ugd.edu.mk/rflab/>). Each student is provided an appropriate place in laboratories, classrooms and lecture halls.

15. List of equipment provided for the realization of the study program

Equipment of laboratories, lecture halls or amphitheatres faculty (annex)

**16. Syllabus information in accordance with Article 4 of the Directive
(Annex no. 3)**

**UNDERGRADUATE STUDY PROGRAM RADIOPHARMACY
FACULTY OF MEDICAL SCIENCES, University "Goce Delcev" – STIP
2 YEARS STUDY PROGRAM (120 ECTS)**

2014 / 2015

I SEMESTER				
Mandatory courses				
CODE	COURSE	ECTS	Classes	Semester workload
	Basic (Applied) Pharmacy	8	3+2+2	216
	Radiopharmaceutical Chemistry	8	3+2+2	216
	Nuclear Physics, Radiation Safety & Regulations	6	2+2+1	156
	Optional Theoretical Course - Faculty/Department - Group 1	4	2+1+1	120
	Optional Theoretical Course - Faculty/Department - Group 1	4	2+1+1	120
Total:		30	12+8+7	828

I SEMESTER				
Optional Theoretical Course - Faculty/Department - Group 1				
CODE	COURSE	ECTS	Classes	Semester workload
	Radiopharmacology	4	2+1+1	120
	Animal models, disease models, animal protection regulations , ethical issues	4	2+1+1	120

I SEMESTER				
Optional Theoretical Course - Faculty/Department - Group 1				
CODE	COURSE	ECTS	Classes	Semester workload
	Drug interventions and interactions/ adverse reactions	4	2+1+1	120
	Biopharmacy, radiotracer transport, pharmacokinetics, modelling	4	2+1+1	120

II SEMESTER				
Mandatory courses				
CODE	COURSE	ECTS	Classes	Semester workload
	Radioisotope production and Radiopharmaceutical preparation	8	3+2+2	216
	Quality control of radiopharmaceuticals	6	2+2+1	156

	Nuclear Medicine - aspects of clinical practice	6	2+2+1	156
	Optional Theoretical Course - Faculty/Department - Group 2	4	2+1+1	120
	Optional Theoretical Course - Faculty/Department - Group 2	6	2+2+1	156
Total:		30	11+9+8	834

II SEMESTER				
Optional Theoretical Course - Faculty/Department - Group 1				
CODE	COURSE	ECTS	Classes	Semester workload
	Implications of Good Manufacturing Practice	4	2+1+1	120
	Regulations and Legal Aspects, Marketing Authorisations	4	2+1+1	120

II SEMESTER				
Optional Theoretical Course - Faculty/Department - Group 1				
CODE	COURSE	ECTS	Classes	Semester workload
	Radiopharmacy Management	4	2+1+1	120
	Quality Assurance and Product Performance	4	2+1+1	120

III SEMESTER				
Mandatory courses				
CODE	COURSE	ECTS	Classes	Semester workload
	Radiopharmaceutical preparation - SPECT radiopharmaceuticals	5	2+2+1	150
	Radiopharmaceutical preparation - PET radiopharmaceuticals	5	2+2+1	150
	Radiopharmaceutical preparation - Therapeutic radiopharmaceuticals	5	2+2+1	150
	Operation of a GMP facility	5	2+2+1	150
	Quality control of radiopharmaceuticals	5	2+2+1	150
	Clinical application of radiopharmaceuticals /NM	5	2+2+1	150
Total:		30	12+12+8	900

IV SEMESTER				
Mandatory courses				
CODE	COURSE	ECTS	Classes	Semester workload
	MASTER THESIS	300		900
Total:		30	11+9+8	834

17. List of teaching staff with data specified in Article 5 of the regulation (Annex no. 4)

The table shows data for teachers employed at the Faculty of Informatics, University "Goce Delchev" and for the teachers selected to entitled docents.

Or. No	Name and Surname	Date and place of birth	When and where is complete education and level of education	When is employed and in which title is selected
1	Emilija Janevik-Ivanovska	11.02.1963, Kumanovo		Univer.Goce Delcev Faculty Medical Sciences Associate professor
2	Rubin Gulaboski			Univer.Goce Delcev Faculty Medical Sciences Professor
3	Bistra Angelovska			Univer.Goce Delcev Faculty Medical Sciences Associate professor
4	Biljana Gjorgeska			Univer.Goce Delcev Faculty Medical Sciences Professor
5	Nevenka Velickovska			Univer.Goce Delcev Faculty Medical Sciences Docent
6	Darko Bosnakovski			Univer.Goce Delcev Faculty Medical Sciences Associate professor

Data for teachers on academic programs of first, second, and third study cycle and for advisors of doctoral dissertations are given in Annex No.3.

18. Statement of the teacher giving a consent for participation in teaching specific subjects of the study program

Statements of teacher giving a consent for teaching certain subjects are given in Annex No.4.

19. Consent of the higher education institution for teacher participation in the realization of the study program

For the realization of the study program of Radiopharmacy, provided all teachers are employees of the University "Goce Delchev" – Stip including visiting professors that will be engaged up to requirements.

20. Information on the number of students enrolling in the first year of the study program

Government in collaboration with the University "Goce Delchev" in Stip determines the number of students on study programs, on the proposal of the teaching council of the Faculty of Medical Sciences.

21. Information provided for mandatory and additional literature

Information on mandatory and additional literature are given in the respective programs (Annex no. 3).

The libraries of the University "Goce Delchev" in Stip, in the e-library is available on the portal of the University, as well as subject teachers have provided enough titles (more than 1500) in accordance with the norms of the Ministry of Education and Science of the Republic of Skopje. A number of books and textbooks from the project to the Government - Translation of 1,000 books. The overall literature issued by the authors - professors at UGD Stip is available in electronic form on the e-Library UGD Stip.

22. Information for website

Web page of the University "Goce Delchev" Stip:
<http://ugd.edu.mk>

Website of the Faculty of Medical Sciences at the University "Goce Delchev" Stip:
<http://www.ugd.edu.mk/index.php/mk/fakulteti/fmn>

Website of the Radiopharmacy Laboratory:
<http://www.ugd.edu.mk/rflab/>

Platform for e-learning at University "Goce Delchev" Stip:
<http://moodle2.ugd.edu.mk>

Student Services, E-index "Goce Delchev" Stip:
<http://studenti.ugd.edu.mk>

E-library of the University "Goce Delchev" - Stip
<https://e-lib.ugd.edu.mk/>

E-schedule of UGD - Stip:
<http://www.ugd.edu.mk/index.php/mk/e-rasporod>

E-info on UGD - Stip:
<http://www.ugd.edu.mk/index.php/mk/e-karticka>

E-Calendar UGD - Stip:
<http://www.ugd.edu.mk/index.php/mk/e-kalendar>

23. Professional or scientific name by which the student acquires after completion of the study program

With completed two years and won 120 ECTS credits under the second cycle of studies the student acquires a academic title:

- Master of Radiopharmacy (NQF VIIA)

24. Activities and mechanisms to develop and maintain the quality of teaching

Within the realization of its integrative functions, University "Goce Delchev" constantly obliged to take care of security and quality of teaching - education. University, as a subsidiary body has opened an office for self-evaluation and quality that has authority to plan and analyze the actions of the entire evaluation system of teaching and research work of the University, to discuss the reports of evaluation and self-evaluation, and proposed and undertaken measures to improve the quality of higher education activity. Quality Center define strategies and policies for monitoring, securing, improving and developing the quality of curriculum, teaching and working conditions of the units of the University.

Instruments that will monitor the quality of teaching and scientific research specific subjects and modules will be:

- survey of students,
- survey of teachers,
- self-evaluation of teachers,
- analysis of the results of learning and exams,
- web portal (e-learning tools),
- measures for promotion and more.

Moreover, as a measure of quality tends to answer the following questions:

- ✓ regularity in teaching and practical activities
- ✓ balance the work load (balance according to ECTS credits)
- ✓ coherence of curricula
- ✓ modern and clearly defined curricula
- ✓ active participation of students in teaching
- ✓ objective verification of progress in the implementation of learning and exams
- ✓ availability of information for students
- ✓ transparency in work and more.

24a. Results of self-evaluation performed according to the Guidelines for the unique basis of evaluation and evaluation procedures of universities adopted by the Agency for evaluation of higher education in the Republic of Macedonia and the Interuniversity Conference of Macedonia (Skopje-Bitola, September 2002).

In October 2010 was conducted internal evaluation for the period 2007-2010. The complete

report of the first self-evaluation as a complete document is submitted to the website of the University Goce Delchev-Stip. Soon expected to be executed and external (international) evaluation of University Goce Delchev-Stip.

In 2014 has realized the first external institutional evaluation of the University Goce Delce from the Institutional Evaluation Programme (IEP) - <http://www.eua.be/iep/Home.aspx>

http://www.eua.be/News/13-1017/IEP_launches_new_round_of_evaluations_for_2013-2014.aspx

http://www.eua.be/Libraries/IEP/UGD_IEP_final_report.sflb.ashx