



Joint Curriculum

Master of Science in Chemical and Energy Engineering

Participating Institutions: OVGU (Magdeburg, Germany) and KNRTU-KAI (Kazan, Russia)

Duration of Study: 2 years

Place for Study: 1st, 2nd and 4th semesters – at KNRTU-KAI, 3rd semester – at OVGU Magdeburg

The following tabular gives an overview about the collaborative Master program. Details will be arranged and documented on operational level between responsible representatives of the participating faculties.

1st semester (winter)

Module	Credits of the Module, ECTS	Minimum Contact Hours	Minimum Total Student Workload Hours	Cert	University`s Teachers
Philosophical Problems of Engineering Knowledge	2	30	60	Exam	KNRTU
English Language / German Language*	3	56	90	Test	KNRTU
Economics and Production Management	2	33	60	Test	KNRTU
Mathematical Modelling /	2	28	60	Test	KNRTU

Computational Modelling*					
Modern Problems of Energy and Heat Engineering / Thermal Engines*	2	28	60	Test	KNRTU
Problems of Energy Resource Saving in Energy and Heat Engineering / Renewable Energies*	3	42	90	Exam	KNRTU
Research Work	6	90	180	Test	KNRTU
Pedagogical Practice	6	90	180	Test	KNRTU
Ecological Safety / Safety Aspects of Chemical Reactions*	2	20	60	Exam	KNRTU
Principles of Effective Process Control in Energy and Heat Engineering / Product Quality*	2	30	60	Test	KNRTU
Total	30	447	900		

* - Selective Modules

2nd semester (summer)

Module	Credits of the Module, ECTS	Minimum Contact Hours	Minimum Total Student Workload Hours	Cert	University`s Teachers
Research Work	5	75	150	Test	KNRTU
Chemistry	5	42	150	Exam	KNRTU or OVGU
Advanced Fluid Dynamics	5	56	150	Test	KNRTU or OVGU
Advanced Heat and Mass Transfer	5	56	150	Test	KNRTU or OVGU

Mechanical Process Engineering	5	56	150	Exam	KNRTU or OVGU
Chemical Reaction Engineering	5	56	150	Exam	KNRTU or OVGU
Total	30	341	900		

3rd semester (winter)

Module	Credits of the Module, ECTS	Minimum Contact Hours	Minimum Total Student Workload Hours	Cert	University`s Teachers
Research Practice and Research Work (Laboratory Work and Excursions)	10	90	300	Test	OVGU
Thermal Process Engineering	5	56	150	Exam	OVGU
Process System Engineering	5	42	150	Exam	OVGU
Combustion Engineering	5	42	150	Exam	OVGU
Plant Design	5	42	150	Exam	OVGU
Total	30	272	900		

4th semester (summer)

Module	Credits of the Module, ECTS	Minimum Contact Hours	Minimum Total Student Workload Hours	Cert	University`s Teachers
Research Practice (as a Part of Master Thesis)	27		810	Test	KNRTU and OVGU

Master Thesis Preparation and Defence (RCS)	3		90		KNRTU and OVGU
Total	30		900		

On behalf of OVGU Magdeburg



Prof. Jens Strackeljan
Rector





Prof. Helmut Weiß
Coordinator of the MSc Program

22. APR. 2014

On behalf of KNRTU-KAI




Prof. Albert Gilmutdinov
Rector



Prof. Victor Gureev
Coordinator of the MSc Program