

RIGA TECHNICAL UNIVERSITY

Faculty of Electronics and Telecommunications

Foreign Students Department

STUDY PROGRAM (international students)

Profile:	Engineering Technology, Mechanics and Mechanical Engineering
Study program:	Master
Duration of studies:	2 years
Number of credits:	81 Credit Points (CP) or 121 ECTS
Previous education:	Bachelor of Engineering Sciences in Mechanical Engineering
Qualification:	Master of Engineering Sciences in Mechanics and Mechanical Engineering

	RTU program code	AMMM0
A. COMPULSORY COURSES	42 CP	
1. MTM409 Technical System Vibration and Stability		4 CP
2. MSE432 Thermodynamics and Gas Dynamics		3 CP
3. MMP539 Vibrotechnology and Vibromachines		4 CP
4. MMP532 Mechanics of Composite Materials		3 CP
5. MTH505 Rotary Machines		3 CP
6. MSE541 Theory of Boundary Layer		4 CP
7. MTM408 Optimization Methods		4 CP
8. MTH503 Computer-aided Analysis of Mechanical Systems of Machines		4 CP
9. MTH507 Machines for Lifting and Transport		4 CP
10. MTM516 Analysis and Optimization of Machines, Structures and Technological Processes		3 CP
11. MSE535 Non-Standard Sources of Energy		3 CP
12. MRA253 Basics of Technical Design		2 CP
13. IDA117 Basics of Occupational Safety		1 CP
B. LIMITED CHOICE	15 CP	
1. Specialized courses	11 CP	
1.1. MMP441 Numerical Methods		4 CP
1.2. MMP518 Theory of Elasticity,Visko-Elasticity and Plasticity		4 CP
1.3. MTM411 Shock Theory		4 CP
1.4. MEE412 Biomaterials		2 CP
1.5. MMP519 Finite Elements Methods		4 CP
1.6. MTM514 Vehicle Mechanics		4 CP
1.7. MEE411 Introduction to Biochemistry and Biophysics		3 CP
1.8. MMP501 Engineering Calculation Software I		4 CP
1.9. MMP510 Experimental Mechanics and Technical Diagnostics		4 CP
1.10. MMP540 Nonlinear Oscillations in Nature and Engineering		4 CP
1.11. MTH504 Numerical Analysis in Dynamic of Machines (for masters)		4 CP
1.12. MMP538 Nonlinear Dynamics and Chaos		4 CP
1.13. MMP533 Nonlinear Mechanic of Materials		3 CP
1.14. MMP535 Fracture Theory		3CP
1.15. MMP534 Automatization of Calculation of Construction Durability		4 CP
1.16. MTH513 Experiment and Diagnostics of Machines		4 CP
1.17. MTH502 Dynamics and Control of Machines (for masters)		4 CP
1.18. MSE436 Energy and Power Machines		4 CP
1.19. MTH507 Machines for Lifting and Transport		4 CP
1.20. MTH509 Processing Machines		4 CP
1.21. MTH512 Environmental Protection Techniques		4 CP
1.22. MTH413 Fatigue and Damages of Materials of Mechanical Constructions		3 CP

1.23. IDA116	Technical Safety of Engineering Industry Products	3 CP
1.24. MTH412	Mechanical Construction	3 CP
1.25. MMI550	Automated Production Machinery and Tools	4CP
1.26. MTH506	Mechanisms with Determinated Law of Motion	3 CP
1.27. MSE437	Facilities of Energy Conversion	3 CP
1.28. MMP536	Multi-criteria Optimization and System Analysis in Mechanical Engineering	4 CP
1.29. MAI512	Automated Production Technology and Logistics	4 CP
1.30. MTH514	Laboratory of Machine Research	4 CP
1.31. IUE473	Project Management and Economic	3 CP
1.32. MRA511	Automated Production Systems	4 CP
1.33. MRA404	Basic Mechatronics	4 CP
1.34. MRA525	Automatic Control	4CP
1.35. MRA510	Technical Vision Methods	4 CP
1.36. MRA401	Automation of Industrial Processes	6 CP
1.37. MRA402	Processing Technology	6 CP
1.38. MRA429	Technical Systems Design	7 CP
1.39. MEE410	Anatomy and Physiology	2 CP
1.40. MEE402	Structural basis of human functions	4CP
1.41. MEE507	Mechanics of Biological Systems	3 CP
1.42. MEE413	Physics of Medical Imaging	4 CP
1.43. MEE508	Radiation Therapy Technologies	3 CP
1.44. MEE406	Spectroscopy Methods in Medicine	5 CP
1.45. MEE509	Medical Instrumentation	3 CP
1.46. MEE407	Medical Engineering Design	5 CP
1.47. RRI598	Analysis of Biological Signals	5 CP
1.48. MEE403	Computer Systems in Medicine	5 CP
1.49. MEE401	Physiological systems	5 CP
1.50. MEE510	Physiological testing	3 CP
1.51. MEE504	Sensory Perception: Vision and Hearing	3 CP
1.52. MEE506	Rehabilitation Methods	3CP
1.53. MEE501	Mechanics of Biological Tissue	3 CP
1.54. MEE404	Physical Materials Science	5 CP
1.55. MEE513	Radiation Physics	5 CP
1.56. MEE503	Ultrasonic Technique	3 CP
1.57. RRI588	Visualization in Medicine	3 CP
1.58. MEE502	Reliability of Medical Equipment	3 CP
1.59. MEE511	Radiation Safety in Medicine	3 CP
1.60. MSE426	Theory and Methods of Experiments in Heat Physics	5 CP
1.61. MSE540	Exergetic Analysis of Thermotechnical Processes and Devices	3 CP
1.62. MSE537	Organization and Planning of Energy Supply	3 CP
1.63. MSE539	Optimization of Heat Supply Systems	3 CP
1.64. MSE529	Local Fuel Resources in Latvia and Possibilities of Their Utilization	3 CP
1.65. MSE422	Refrigerator Equipment	3 CP
1.66. MSE381	Systems of Production and Distribution of Energy Carriers	2 CP
1.67. MSE447	Fundamentals of Designing and APS(?)	2 CP
1.68. MSE446	Industrial Furnaces	2 CP
1.69. MSE440	Specialized Course on Thermal Electric Power Stations	3 CP
1.70. MSE442	Specialized Course Control and Automation of Thermotechnical Processes	3 CP
1.71. MTH503	Computer-Aided Analysis of Mechanical Systems of Machines	4 CP
1.72. MSE388	Pumps, Ventilators, Compressors	2 CP
1.73. MSE429	Thermal Calculations Software	3 CP
1.74. MSE278	Thermal Engines	2 CP
1.75. MSE323	Thermotechnical Measurements and Fundamentals of Automation	2 CP
1.76. MSE428	Specialized Course in Ecology	2 CP
2.	<i>Humanities and social sciences</i>	4 CP
2.1. HSP483	Industrial Relations	2 CP
2.2. HSP488	Business Sociology	2 CP
2.3. HSP430	Social Psychology	2 CP

2.4. HFL432	Ethics		2 CP
2.5. HSP484	Psychology		2 CP
2.6. HSP446	Pedagogy		2 CP
2.7. HSP485	Communication Psychology		2 CP
2.8. IUE217	Business Economics		2 CP
2.9. IUE409	New Product Marketing		2 CP
2.10. IUE307	Planning of Entrepreneurship		2 CP
2.11. IUV508	Legal Regulation of Entrepreneurship		2 CP
C.	FREE CHOICE COURSES	4CP	
E.	FINAL EXAMINATION	20 CP	
4.1. MTM002	Master Thesis		20 CP
4.2. MEE002	Master Thesis		20 CP
4.3. MSE002	Master Thesis		20 CP
	TOTAL:	81 CP	