Appendix 1: List of Modules Developed by Each University Within Thematic Blocks

University	Code	Thematic Block	Subject
UŚ	01_US_AM	Materials & Manufacturing	Additive Manufacturing
UŚ	02_US_ATMMS	Advanced Methods for Materials Characterisation	Advanced Testing Methods in Materials Science
UŚ	03_US_SN	Applied Materials Science	Sustainable Nanomaterials
UŚ	04_US_SCM	Advanced Engineering Materials	Sustainable Composite Materials
UŚ	05_US_CMEH	Advanced Engineering Materials	Ceramics Materials for Energy Harvesting
UŚ	06_US_MHE	Applied Materials Science	Materials for Hydrogen Energy
UŚ	07_US_PM	Materials & Manufacturing	Powder Metallurgy
UŚ	08_US_MMMSI	Advanced Engineering Materials	Modern Metallic Materials for Sustainable Industry
UŚ	09_US_MKP	Advanced Engineering Materials	Modern Knowledge About Polymers
UŚ	10_US_GT	Materials Testing Methods and Failure Analysis	Green Tribology
UŚ	11_US_DFSUCCS	Computational Methods in Materials Science	Design for Sustainability Using CAD-CAM Software
UŚ	12_US_MCSCM	Materials & Manufacturing	Manufacturing and Characterization of Single-Crystalline Materials

UŚ	13_US_AANES	Applied Materials Science	Advancements and Applications of Nanomaterials in Environmental Sciences
UŚ	14_US_SDME	Applied Materials Science	Sustainable Development in Materials Engineering
UŚ	15_US_CMSPM	Computational Methods in Materials Science	Computer Modeling of the Structure and Properties of Materials
UŚ	16_US_SP	Advanced Engineering Materials	Smart Polymers
UŚ	17_US_LM	Research & Development in Material Science and Engineering	Lean Management
UŚ	18_US_SIRT	Internship	Student Internship in a Research Team
UŚ	19_US_DMNE	Materials Testing Methods and Failure Analysis	Degradation of Materials in the Natural Environment
UŚ	20_US_RPMT	Research Project - Master Thesis	Research Project - Master Thesis
IFNUL	01_IFNUL_EMD	Applied Materials Science	New Electrochromic Materials and Devices
IFNUL	02_IFNUL_PCCMS	Fundamental Aspects of Materials Science	Physical and Colloid Chemistry for Material Scientists
IFNUL	03_IFNUL_SCP	Applied Materials Science	Smart Conjugated Polymers
IFNUL	04_IFNUL_TMCCPL	Materials Testing Methods and Failure Analysis	Testing of Metallic and Conversion Corrosion Protection Layers
IFNUL	05_IFNUL_MPhChMSA	Advanced Methods for Materials Characterisation	Modern Physicochemical Methods of Surface Analysis
IFNUL	06_IFNUL_CBS	Applied Materials Science	Chemo- and Biosensors. Materials and Applications
IFNUL	07_IFNUL_MPMPA	Applied Materials Science	Membrane Processes: Materials, Properties, and Applications

IFNUL	08_IFNUL_NNE	Applied Materials Science	Nanomaterials and Nanotechnologies in Ecology
IFNUL	09_IFNUL_TPCPL	Materials Testing Methods and Failure Analysis	Testing of Polymer Corrosion Protection Layers
IFNUL	10_IFNUL_XRDASM	Advanced Methods for Materials Characterisation	X-Ray Diffraction: Atomic Structure and Microstructure
IFNUL	11_IFNUL_CS	Research & Development in Material Science and Engineering	Creating a Startup
IFNUL	12_IFNUL_AFM	Advanced Engineering Materials	Advanced Functional Materials
IFNUL	13_IFNUL_CC(RCSP)	Fundamental Aspects of Materials Science	Crystal Chemistry (Relationship Composition–Structure–Properties)
IFNUL	14_IFNUL_PDMS	Fundamental Aspects of Materials Science	Phase Diagrams of Multicomponent Systems
IFNUL	15_IFNUL_AEB	Materials & Manufacturing	Assembling Electrical Batteries
IFNUL	16_IFNUL_MMM	Advanced Engineering Materials	Magnetism and Magnetic Materials
IFNUL	17_IFNUL_DBML	Computational Methods in Materials Science	Databases for Machine Learning
IFNUL	18_IFNUL_PBM	Advanced Engineering Materials	Perovskite-Based Materials
IFNUL	19_IFNUL_SEM	Advanced Methods for Materials Characterisation	Scanning Electron Microscopy and Energy Dispersive X-Ray Analysis
AKU	01_AKU_RM	Applied Materials Science	Refractory Materials
AKU	02_AKU_PLC	Advanced Engineering Materials	Polymers and Light Composites
AKU	03_AKU_PSPRNM	Advanced Engineering Materials	Process, Structure and Property in Non-Metallic Materials

AKU	04_AKU_CCTI	Materials & Manufacturing	Casting and Casting Technology in Industry
AKU	05_AKU_TSQA	Research & Development in Material Science and Engineering	Testing Standards and Quality Assurance
AKU	06_AKU_NAMMC	Advanced Methods for Materials Characterisation	Numerical and Applied Methods in Materials Characterization
AKU	07_AKU_ADASA	Applied Materials Science	Aviatic and Defence Alloys and Science of Armours
AKU	08_AKU_FAP	Materials Testing Methods and Failure Analysis	Failure Analysis and Its Prevention
AKU	09_AKU_MSP	Fundamental Aspects of Materials Science	Materials Selection and Principles
AKU	10_AKU_ST	Materials & Manufacturing	Sintering Technologies
AKU	11_AKU_TAPEM	Advanced Engineering Materials	Theory of Alloys and Phases
AKU	12_AKU_MOM	Advanced Engineering Materials	Mechanics of Composite Materials
AKU	13_AKU_SHTP	Materials & Manufacturing	Solidification and Heat Treatment Processes
AKU	14_AKU_NAHSI	Advanced Engineering Materials	Novel Alloys: HEAs, Superalloys, and Intermetallics
AKU	15_AKU_KMP	Fundamental Aspects of Materials Science	Kinetics of Metallurgical Processes
AKU	16_AKU_TWJTIM	Materials & Manufacturing	Theory of Welding and Joining Techniques
AKU	17_AKU_NSMP	Computational Methods in Materials Science	Numerical Simulations for Metal Processing
AKU	18_AKU_WPISP	Materials Testing Methods and Failure Analysis	Wear Prevention and Improvement of Surface Properties

AKU	19_AKU_MES	Applied Materials Science	Materials for Electronics and Sensors
AKU	20_AKU_SWRMMP	Materials & Manufacturing	Sustainable Waste and Recycling Management in Manufacturing Processes
AKU	21_AKU_ISRT	Research & Development in Material Science and Engineering	Introduction to Scientific Research Techniques
UNIZA	01_UNIZA_MBE	Applied Materials Science	Materials for Biomedical Engineering
UNIZA	02_UNIZA_NM	Advanced Engineering Materials	Non-Metallic Materials
UNIZA	03_UNIZA_SCPT	Fundamental Aspects of Materials Science	Selected Chapters from Phase Transformations
UNIZA	04_UNIZA_GCT	Fundamental Aspects of Materials Science	General Chemistry for Technicians
UNIZA	05_UNIZA_PPUP	Advanced Engineering Materials	Properties, Processing, and Using of Plastics
UNIZA	06_UNIZA_CST	Applied Materials Science	Corrosion and Surface Treatments
UNIZA	07_UNIZA_QCM	Advanced Methods for Materials Characterisation	Quality Control of Materials
UNIZA	08_UNIZA_PS	Research Project - Master Thesis	Project Study
UNIZA	09_UNIZA_ACM	Advanced Engineering Materials	Advanced Construction Materials
UNIZA	10_UNIZA_PP	Professional Practice	Professional Practice
UNIZA	11_UNIZA_DPLCM	Materials Testing Methods and Failure Analysis	Degradation Processes and Limit Conditions
UNIZA	12_UNIZA_MSA	Advanced Methods for Materials Characterisation	Methods of Structure Analysis

UNIZA	13_UNIZA_FRAC	Materials Testing Methods and Failure Analysis	Fractography
UNIZA	14_UNIZA_DSFL	Materials Testing Methods and Failure Analysis	Dynamic Strength and Fatigue Life
UNIZA	15_UNIZA_MT	Materials & Manufacturing	Materials Technologies
UNIZA	16_UNIZA_FM	Materials Testing Methods and Failure Analysis	Fatigue of Materials
UNIZA	17_UNIZA_FLAI	Applied Materials Science	Fuels and Lubricants in Automotive Industry
UNIZA	18_UNIZA_PUM	Advanced Engineering Materials	Properties and Use of Materials
UNIZA	19_UNIZA_ME	Fundamental Aspects of Materials Science	Materials Engineering
UNIZA	20_UNIZA_STAEM	Fundamental Aspects of Materials Science	Surface Treatment of Advanced Engineering Materials