

Course units for the doctoral programme in P3972 Nanotechnology and Advanced Materials

Degree Course 3942V006 Nanotechnology and Advanced Materials

Course units are selected in accordance with Article 36 of the Study and Examination Regulations of TBU in Zlín.

Abbreviation	Name of Subject	Lecturer
Basic compulsory elective course units:	Student shall select a minimum of 2 course units from the basic compulsory elective course units (besides a foreign language)	
CJV/DTAW1, DTAW2	Academic Writing (bez zk.) *)	doc. Ing. Anežka Lengálová, Ph.D.
CJV/DTTP1, DTTP2	Technical Presentation *)	doc. Ing. Anežka Lengálová, Ph.D.
TCPM/TWDIM	Instrumental Methods in Analysis and Testing of Materials	doc. Ing. Michal Sedlačík, Ph.D.
TUTTTK/TWDPK	Advances in colloid chemistry	doc. Ing. Marián Lehocký, Ph.D.
TCPM/TWDNN	Nanomaterials and nanotechnology	doc. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D. prof. Qilin Cheng, MSc., Ph.D.
TCPM/TWDPM	Advanced Materials and Technologies	doc. Ing. Tomáš Sedláček, Ph.D.
Other compulsory elective course units:	Student shall select one of the other compulsory elective course units.	
TCPM/TWDEM	Electric and Magnetic Properties of Nanomaterials	doc. Ing. Jarmila Vilčáková, Ph.D. doc. Natalia Kazanstseva, MSc., Ph.D.
TCPM/TWDSN	Sensors for nanotechnology	prof. Ing. Petr Slobodian, Ph.D.
TCPM/TWDMP	Microscopic analysis	doc. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D.
TUVI/TWDFP	Polymer physics	prof. Ing. Berenika Hausnerová, Ph.D.
TUTTTK/TWDPF	Advances in physical chemistry	doc. Ing. Marián Lehocký, Ph.D.
Optional elective course units:		
TCPM/TWDMM	Applied microscopy and microanalysis	doc. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D. Ing. Michal Machovský, Ph.D.
TCPM/TWDRD	Rheology of disperse systems	doc. Ing. Michal Sedlačík, Ph.D.
TCPM/TWDST	Special techniques of nanomaterials synthesis	doc. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D. Raghendra Singh Yadav, M.Sc., Ph.D.
TCPM/TWDUS	Fatigue and aging of materials	prof. Ing. Petr Slobodian, Ph.D. Ing. Miroslav Mrlík, Ph.D.

*) Course units CJV/DTAW and CJV/DTTP merged together form 1 compulsory course unit, jointly referred to as English Language in the Individual Curriculum

Student shall select a minimum of 4 course units, which shall include at least 2 of the basic compulsory elective course units (besides a foreign language) and one of the other compulsory elective course units, that help improve or broaden knowledge in the specialization depending on the particular topic of the student's doctoral thesis. The course units shall be selected with respect to the multidisciplinary character of the degree course. The English language is prescribed as compulsory. In compliance with the Study and Examinations Rules (SER) of TBU in Zlín, students are allowed to choose also other elective course units upon request by the supervisor and upon approval by the NAM Doctoral Programme Board.

Optional elective course units are offered in the form of specialized courses including a considerable extent of practical experimental training; the PhD student usually prepares a project for the course units in question, that is connected with the topic of the research s/he focuses on in his/her doctoral thesis. The project topic is elaborated in such a manner as to enable the application of the results thereof in form of (a part of) publication(s) written by the PhD student. A clear advantage consists in a systematic (as well as formal and organizational) affiliation of the PhD student's formation during the process of gaining expertise. In a majority of cases, the project implemented within the given course unit would be led for the student by his/her consultant (supervisor - specialist).