

Name of university, Name of faculty: Trnava University
Faculty of Education

INFORMATION SHEET OF THE SUBJECT

Code: YMIM301		Name: Virtual Resources and Environment in Teaching Mathematics			
Cover: Department of Mathematics and Computer Science					
Type of educational activity: Seminar				Number of credits: 3	Recommended semester: WT
Scope of educational activity (in hours): Weekly: 2 For term of study: ZS 46					Study grade: Master
Method of educational activity: Combined					
Recommended semester	Study programme				
2.year WT	Matematika_Mgr (YM_Mgr) Teaching Mathematics and Teaching English and Literature (YM-Aj-D2) Teaching Mathematics and Teaching Biology (YM-B-D2) Teaching Mathematics and Teaching Ethics (YM-Ev-D2) Teaching Mathematics and Teaching History (YM-His D2) Teaching Mathematics and Teaching Chemistry (YM-CH-D2) Teaching Mathematics and Teaching Informatics (YM-I-D2) Teaching Mathematics and Teaching of Religions Education (YM-Nv-D2) Teaching Mathematics and Teaching Civic Education (YM-VO-D2) Teaching Mathematics and Teaching Fine Arts (YM-Vu-D2) Teaching German and Literature and Teaching Mathematics (YNj-M-D2)				
Underlie subjects:					
Conditions for passing the course:					
Method of evaluation: Completion by taking an examination					
Continuous evaluation: the student will prepare a seminar paper according to the teacher's assignment, which has four parts: effective use of interactive applications in teaching, creation of a series of electronic tests of graded difficulty, effective use of software for dynamic geometry in the teaching of planimetry or stereometry, use of a system of computational algebra in the teaching of mathematics. A maximum of 25 points may be earned for each part.					
Final evaluation: none					
Finished: the course is completed on the basis of an continuous assessment. A minimum of 91 points is required for an A grade, a minimum of 81 points is required for a B grade, a minimum of 71 points is required for a C grade, a minimum of 61 points is required for a D grade, and a minimum of 51 points is required for an E grade.					
A condition for passing the course is also the implementation of the non-contact part of the course. This part is implemented mainly by regular study of the material covered in the last seminar, regular preparation for the next seminar, preparation and elaboration of a seminar paper, study of recommended study literature, study of video recordings in Teams.					
Learning outcomes:					
VV1 The student knows the strengths and weaknesses of the integration of modern technologies into education					
VV2 The student is able to use ICT effectively in teaching mathematics, in the context of lessons, preparation of materials for students, teacher preparation for lessons and home preparation of pupils and students					
VV3 The student is able to find, critically evaluate and appropriately use interactive applications to achieve learning objectives in mathematics					
Schedule of subject:					
The Internet in mathematics education. Multimedia products suitable for supporting the teaching of mathematics in lower and upper secondary education.					
Interactive applications in mathematics education.					
Systems for creating electronic tests in mathematics.					
The use of computer algebra systems (CAS) in mathematics education.					
Dynamic geometry software and its appropriate and effective use in mathematics education.					
Recommended reading:					
POKORNÝ, M.: E-learningové kurzy ako efektívny nástroj vo vyučovaní matematických predmetov na PdF TU. Praha, powerprint, 2011.					
ŽILKOVÁ, K.: Školská matematika v prostredí IKT. Bratislava, UK, 2009.					
Gergelitsová, Š.: Počítač ve výuce nejen geometrie: Průvodce Geogebrou. Generation Europe, 2012.					
Fulier, J. - Ďuriš, V. - Frantová, P.: Systémy počítačovej algebry CAS vo vyučovaní matematiky. UKF Nitra, 2007.					
Language requirements: Slovak					
Notes:					
Course evaluation:					
Assessed students in total: 36					
A	B	C	D	E	FX
58%	14%	17%	6%	3%	3%

Lecturers:

PaedDr. Jana Fialová, PhD., lecturer, examiner, instructor, seminary supervisor

Date of last change: 01.09.2026

Approved by: doc. RNDr. Dušan Holý, CSc., univer. prof.