Z011	**English for Mathematics and Computer Science Students I**	P	S	E	ECTS
		0	2	0	3

Course objectives. Students should acquire fundamental terminology from the fields of mathematics and computer science as well as apply structures typical of LSP (Language for Specific Purposes). They should be taught and trained how to read various pieces of literature from the fields of mathematics and computer science as well as to carry out conversation referring to some basic topics in their fields of study.

Course prerequisites. High-school knowledge of the English language.

Syllabus.
1. Academic English. Who is who at the Department of Mathematics? Further vs higher education. Study programmes and courses. Knowledge assessment. Academic collocations and miscollocations.
2. What is mathematics? Fields of mathematics. Numbers/numerals/digits. The number system. Sets of numbers. Arithmetical operations on numbers. Reading mathematical symbols. Fractions. Powers and roots. Factors. Ratio, proportion and percentage. Equations and formulae.
3. Coordinate system. Functions. Lines and angles. The triangle. Trigonometric functions. The circle. More 2-dimensional figures. 3-dimensional figures.
4. Tenses. Making questions (yes-no questions, wh-questions). Passive voice. Conditional sentences.

EXPECTED LEARNING OUTCOMES

No.	LEARNING OUTCOMES
1.	to develop language skills (reading, writing, speaking and listening) necessary for receptive and productive use of language in spoken and written discourse;
2.	to distinguish between, define and understand the basic LSP terminology from the fields of mathematics and computer science, and use it in other contexts;
3.	to read, analyse and present a short written text, describe a figure, read a formula;
4.	to understand oral presentations and dialogues;
5.	to take part in conversations and discussions in relation to the given LSP topic, express one's own opinion;
6.	to translate short texts from English into Croatian independently, using appropriate literature (dictionaries, textbooks, etc.);
7.	to notice, analyse and apply the principles of formation and use of typical structures.

COUPLING OF THE LEARNING OUTCOMES, TEACHING PROCESS ORGANIZATION AND THE EVALUATION OF THE TEACHING OUTCOMES

TEACHING PROCESS ORGANIZATION	ECTS	LEARNING OUTCOME **	STUDENT ACTIVITY*	EVALUATION METHOD	SCORE	
					Min	max
Semunar attendace	1	1-7	Participation in discussion, homework	Attendance sheets and observing student's participation; checking homework assignements	0	10
Preliminary exam	1	1-7	Preparation for exam	Checking the corectness of answers	35	60
Final exam	1	1-7	Revision of subject matter	Oral exam	15	30
Total	3				50	100

Teaching methods and student assessment. This course is organised through seminars which are obligatory for all students. Students are allowed to be excused from class 30% of the total number of seminars. From time to time, students are assigned homework or small project tasks, which affects their final grades, as can be seen in hte table above. Students' knowledge is continuously assessed by two preliminary exams. Acceptable results in preliminary exams can replace the written part of the final exam. The oral part takes place at the end of the semester.

Can the course be taught in English: Yes

Basic literature:

1. Ferčec, A Course in Scientific English: Mathematics, Physics, Computer Science, Odjel za matematiku/Elektrotehnički fakultet, Osijek, 2001.
2. R. Murphy, English Grammar in Use, CUP, Cambridge, 1999.

Recommended literature:

1. C. Clapham, The Concise Dictionary of Mathematics, OUP, Oxford, 1996.
2. D. Koračin, Čitanje matematičkih formula, Element, Zagreb, 1996.
3. M. Krajnović, Rječnik matematičkih naziva, Matematičko-fizički list, (izvanredni broj), Zagreb, 1999-2000.
4. Oxford Dictionary of Computing (ur. V. Illingworth), OUP, Oxford, 1996.
5. M. McCarthy, F. O'Dell, Academic Vocabulary in Use. Cambridge University Press, Cambridge, 2008.

Z011	**German for Mathematics and Computer Science Students I**	P	S	E	ECTS
		0	2	0	3

Course objectives. Students should acquire fundamental terminology from the fields of mathematics and computer science as well as apply structures typical of LSP (Language for Specific Purposes). They should be taught and trained how to read various pieces of literature from the fields of mathematics and computer science as well as to carry out conversation referring to some basic topics in their fields of study.

Course prerequisites. High-school knowledge of the German language.

Syllabus.
1. Academic English. Who is who at the Department of Mathematics? Further vs higher education. Study programmes and courses. Knowledge assessment.
2. What is mathematics? Fields of mathematics. Numbers/numerals/digits. The number system. Sets of numbers. Arithmetical operations on numbers. Reading mathematical symbols. Fractions. Powers and roots. Factors. Ratio, proportion and percentage. Equations and formulae. Coordinate system. Functions. Lines and angles. The triangle. Trigonometric functions. The circle. More 2-dimensional figures. 3-dimensional figures
3. Clause sentences (Time, Relative, Condition with/without "wenn", Participle 1 and 2, Passive)

EXPECTED LEARNING OUTCOMES

No.	LEARNING OUTCOMES
1.	to develop language skills (reading, writing, speaking and listening) necessary for receptive and productive use of language in spoken and written discourse;
2.	to distinguish between, define and understand the basic LSP terminology from the fields of mathematics and computer science, and use it in other contexts;
3.	to read, analyse and present a short written text, describe a figure, read a formula;
4.	to understand oral presentations and dialogues;
5.	to take part in conversations and discussions in relation to the given LSP topic, express one's own opinion;
6.	to translate short texts from German into Croatian independently, using appropriate literature (dictionaries, textbooks, etc.);
7.	to notice, analyse and apply the principles of formation and use of typical structures.

COUPLING OF THE LEARNING OUTCOMES, TEACHING PROCESS ORGANIZATION AND THE EVALUATION OF THE TEACHING OUTCOMES

TEACHING PROCESS ORGANIZATION	ECTS	LEARNING OUTCOME **	STUDENT ACTIVITY*	EVALUATION METHOD	SCORE	
					Min	max
Semunar attendace	1	1-7	Participation in discussion, homework	Attendance sheets and observing student's participation; checking homework assignements	0	10
Preliminary exam	1	1-7	Preparation for exam	Checking the corectness of answers	35	60
Final exam	1	1-7	Revision of subject matter	Oral exam	15	30
Total	3				50	100

Teaching methods and student assessment. This course is organised through seminars which are obligatory for all students. Students are allowed to be excused from class 30% of the total number of seminars. From time to time, students are assigned homework or small project tasks, which affects their final grades, as can be seen in hte table above. Students' knowledge is continuously assessed by two preliminary exams. Acceptable results in preliminary exams can replace the written part of the final exam. The oral part takes place at the end of the semester.

Can the course be taught in English: No

Basic literature:
1. H. Binder/R. Buhlmann, Hinführung zur mathematisch-naturwissenschaftlichen Fachsprache, Teil 1: Mathematik, Max Hueber Verlag, München, 1981.
2. Autorengruppe, Deutsch – Ein Lehrbuch für Ausländer – Mathematik, VEB Verlag Enzyklopädie Leipzig, 1978.
3. Dreyer-Schmitt, Lehr- und Übungsbuch der deutschen Grammatik, Max Hueber Verlag, München, 2000.

Recommended literature:
1. D. Koračin, Čitanje matematičkih formula, Element, Zagreb, 1996.
2. M. Krajnović, Rječnik matematičkih naziva, Matematičko-fizički list (izvanredni broj), Zagreb, 1999-2000.