



MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI JAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE

Jl. Rawamangun Muka, RT 11/RW14, Rawamangun, Pulo Gadung
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ICT Based Teaching and Learning in Mathematics

Module designation	ICT Based Teaching and Learning in Mathematics
Semester(s) in which the module is taught	VI (even semester)
Person responsible for the module	Dwi Antari Wijayanti, M.Pd. Agus Agung Permana, S.Si., M.Pd.
Language	Bahasa Indonesia
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>lecture, lab works, project</i>
Workload (incl. contact hours, self-study hours)	For this course, <i>students</i> required to meet a minimum of 135,99 hours in one semester, which consist of: 39,99 hours for lecture, 96 hours for structured assignments and private study,
Credit points	4.5 ECTS / 3 CP
Required and recommended prerequisites for joining the module	Introduction to Computer Animation
Module objectives/ intended learning outcomes	<p>Mahasiswa mampu:</p> <ol style="list-style-type: none"> 1. Comparing ICT-based and conventional mathematics learning 2. Choose and use software to support Algebra learning 3. Choose and use software to support learning Geometry 4. Choose and use software to support Calculus learning 5. Arranging various ICT-based learning resources (internet) and their features) to support Mathematics learning 6. Designing and developing ICT-based learning media to support mathematics learning



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Content	<p>Students will learn about:</p> <ol style="list-style-type: none"> 6. Definition of ICT and the History of the Use of ICT in Learning 7. Software that can be used in learning Mathematics 8. Use of the internet in learning Mathematics 9. Development of ICT-based learning media to support Mathematics learning
Examination forms	Assessment of the learning process according to the following components: Assignments 20%, Project 1 (UTS) 40%, and Project 2 (UAS) 40%
Study and examination requirements	<ol style="list-style-type: none"> 3. Students must attend a minimum of 80% of lecture sessions and submit all individual and group assignments scheduled before the final exam. 4. Students are declared to have passed the course with a minimum grade of C <p>Form of examination: Project</p>
Reading list	<p>Main Reference</p> <ul style="list-style-type: none"> ● Darmawan, V., 2008, Panduan Praktis Mengelola Milis untuk Moderator dan Anggota Yahoo!Groups, Jakarta : PT Elex Media Komputindo. ● Enterprise, J., 2008, 101 Tip dan Trik Google, Jakarta : Elex Media Komputindo ● ICT Competency Standard for Teachers, Unesco, Paris, 2008. ● Khoe Yao Tung, 2000, Pendidikan dan Riset di Internet Strategi Meningkatkan Kualitas SDM dengan Riset dan Pendidikan Global Melalui Teknologi Informasi, Jakarta: Dinastindo. <ol style="list-style-type: none"> 2. Murtiyasa, B., 2006, Pemanfaatan TIK untuk Meningkatkan Kualitas Pembelajaran, Surakarta: MUP