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
East Jakarta City, Special Capital Region Of Jakarta 13220
Email: pend.mat@unj.ac.id, http: https://fmipa.unj.ac.id/penmat

Learning on Mathematics for Junior High School

Module designation	Learning on Mathematics for Junior High School
Semester(s) in which the module is taught	VI (Even Semester)
Person responsible for the module	Dwi Antari Wijayanti, M. Pd
Language	Indonesian Language
Relation to curriculum	Elective
Teaching methods	Teaching methods used in this course are: - Lecture (i.e., collaboration learning, group discussion, and presentation) - Structured assignments (i.e., essay dan laporan kelompok)
Workload (incl. contact hours, self-study hours)	For this course, students required to meet a minimum of 154,66 hours in one semester, which consist of 26,66 hours for lecture 64 hours for structured assigments 64 hours for private study
Credit points	3 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	- Students can understand the trends in mathematics education in theory and practice. - Students can understand the mathematics curriculum of junior high school - Students can understand the theory of learning mathematics, the essential materials of junior high school mathematics, and experiments teaching mathematics topics of junior high school.

Module Description of Bachelor in Mathematics Education

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Content	**Students will learn about:**
	Discusses the latest trends in mathematics education in terms of theory and practice. The study of this course includes junior high school mathematics curriculum, theory of learning mathematics, essential material for junior high school mathematics, and experiments teaching junior high school mathematics subjects.
Examination forms	Assessment of the learning process according to the following components: active learning 10%, group assignments (laporan kelompok) 30%, mid-test 20%, final test 40%.
Study and examination requirements	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the classdue to sickness, etc. - Students must submit all classwork before the final test time. - - Students must submit a final report to take the final exam. **Form of examination:** Forms of examination: final report, mid-test, final test

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Reading list	
	1. Dossey, J. A., McCrone, S., Giordano, F. R., & Weir, M. D. (2002), Mathematics Methods and Modeling for Today's Mathematics Classroom. A Contemporary Approach to Teaching Grade 7- 12, Brooks/Cole, USA 2. Fortuny, J. M., Gimenez, J., & Alsina, C. (1994), Integrated Assessment on Mathematics 12-16, Educational Studies In Mathematics 27, pp. 401 – 412 3. Franke, M. F., & KAzemi, E., (2001), Learning to Teach Mathematics: Focus On Student Thinking, Theory Into Practice Vol. 40, No. 2 4. Gravemeijer, K. (1999), How Emergent Models May Foster the Constitution of Formal Mathematics, Mathematical Thinking and Learning 1(2), pp. 155 – 177 5. Johnson, M., & Johnson, T. (2000), How to Solve Word Problems in Algebra Proven Techniques from an Expert, McGraw Hill, USA 6. Kulm, G. (1994), Mathematics Assessment What Works in the Classroom, Jossey-Bass Inc., USA 7. Lian, N., Teaching and Learning Geometry: Problems and Prospects, Masalah Pendidikan 27, pp. 165 – 178 8. Mousley, J., Sullivan, P., & Zevenbergen, R. (....). Alternative Learning Trajectory 9. Morrow, L. J, & Kenney, M. J. (1998), The Teaching and Learning of Algorithms in School Mathematics, National Council of Teachers of Mathematics, USA 10. Pappas, T. (2001), The Joy of Mathematics Discovering Mathematics All Around You, Wide World Publishing/Tetra, USA 11. Sembiring, R. K., (2008), Apa dan Mengapa PMRI, Majalah PMRI Vol. VI No. 4 12. Simon, M. A. (1995), Reconstructing Mathematics Pedagogy from a Constructivist Perspective, Journal for Research in Mathematics Education Vol. 26, No. 2, pp. 114 – 145 13. Stacey, K. (....), The Transition from Arithmetic Thinking to Algebraic Thinking 14. Uzel, D. (2006), Attitudes of 7th Class Students Toward Mathematics in Realistic Mathematics Education, International Mathematical Forum, 1, No. 39, pp 1951 – 1959 15. Van De Walle, J. A., & Folk, S. (2005), Elementary and Middle School Mathematics Teaching

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