UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION
Jalan Colombo Nomor 1 Yogyakarta 55281
Telepon: (0274) 565411 Pesawat 217, (0274) 565411 (TU); Fax. (0274) 548203
Laman: fmipa.uny.ac.id, E-mail: humas_fmipa@uny.ac.id

Module name:	Ethnomathematics
Module level, if applicable:	Undergraduate
Code:	PMA6214
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	7th
Module coordinator:	Marsigit, M.A., Dr., Prof.
Lecturer(s):	Marsigit, M.A., Dr., Prof.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90,67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes self study per week for 16 weeks.
Credit points:	2
Prerequisites course(s):	Strategies for Mathematics Learning (PMA6305)
Course outcomes:	After taking this course the students have ability to: CO1. Identify and uncover mathematics of different ethnic and culture CO2. Develop mathematics of its own ethnic and culture CO3. Review the possibility and the potentiality of mathematics of its own ethnic and culture to be contributed to mathematics education development

<table>
<tr><td></td><td>CO4. Develop teaching and learning resources for ethnic and culture based mathematics teaching and learning processes
CO5. Develop teaching materials for ethnic and culture based mathematics teaching and learning processes</td></tr>
<tr><td>Content:</td><td>The subject related to the willingness, attitude, knowledge, skill and experience of the reviewing and developing mathematics education based on multi ethnic and culture.</td></tr>
<tr><td>Study / exam achievements:</td><td>Assignment covers: identifying mathematics and mathematics education of various ethnic and culture, characterizing mathematics and mathematics education of various ethnic and culture, and developing mathematics and mathematics education of its own ethnic and culture.

The final mark will be weight as follow:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO2, CO3, CO4, and CO5</td><td>a. Individual assessment
b. Group assessment (including presentation)
c. Developing Scientific Papers
d. Mid exam
e. Final exam</td><td>Presentation/ Oral test
Written test</td><td>10%
10%
20%
30%
30%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
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<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer, Internet Website</td></tr>
<tr><td>Literature:</td><td>1. Ascher, M. (1991). Ethnomathematics: A multicultural view of mathematical ideas. New York: Chapman and Hall.
2. Ascher, M. (1995). Models and maps from the Marshall Islands: A case in ethnomathematics. Historia Mathematica.
3. Ascher, M., & D’Ambrosio, U. (1994). Ethnomathematics: A dialogue. For the Learning of Mathematics.
4. Banks, J. A., & Banks, C. A. M. (1995). Handbook of research on multicultural education. New York: Macmillan.</td></tr>
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	5. Berry, J. W. (1985). Learning mathematics in a second language: Some cross-cultural issues. For the Learning of Mathematics. 6. Bishop, A. J. (1988). Mathematical enculturation: A cultural perspective on mathematics education. Dordrecht, The Netherlands: Kluwer Academic Publishers. 7. Civil, M. (1995, July). Connecting home and school: Funds of knowledge for mathematics teaching. Paper presented in the working group on Cultural Aspects in the Learning of Mathematics, 19th International Conference for the Psychology of Mathematics Education, Recife, Brazil. 8. Cobb, P., Gravemeijer, K., Yackel, E., McClain, K., & Whitenack, J. (1997). Mathematizing and symbolizing: The emergence of chains of signification in one firstgrade classroom. In D. Kirshner & J. A. Whitson (Eds.), Situated cognition: Social, semiotic, and psychological perspectives (pp. 151–233). Mahwah, NJ: Lawrence Erlbaum.

PLO and CO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1						✓						
CO2								✓				
CO3						✓						
CO4								✓				
CO5								✓				