| | CULTUR | | D MATHEMATICS | | | | | | |
|------|--|--|---|--|--|--|--|--|--|
| 1 | Course Title: | CULTUR | E AND MATHEMATICS | | | | | | |
| 2 | Course Code: | İMÖ0007 | 7 | | | | | | |
| 3 | Type of Course: | Optional | | | | | | | |
| 4 | Level of Course: | First Cyc | le | | | | | | |
| 5 | Year of Study: | 2 | | | | | | | |
| 6 | Semester: | 3 | | | | | | | |
| 7 | ECTS Credits Allocated: | 4.00 | | | | | | | |
| 8 | Theoretical (hour/week): | 2.00 | | | | | | | |
| 9 | Practice (hour/week): | 0.00 | | | | | | | |
| 10 | Laboratory (hour/week): | 0 | | | | | | | |
| 11 | Prerequisites: | | | | | | | | |
| 12 | Language: | Turkish | | | | | | | |
| 13 | Mode of Delivery: | Face to f | ace | | | | | | |
| 14 | Course Coordinator: | | | | | | | | |
| 15 | Course Lecturers: | | | | | | | | |
| 16 | Contact information of the Course Coordinator: | | | | | | | | |
| 17 | Website: | | | | | | | | |
| 18 | Objective of the Course: | To know how mathematics develops from a need and intellectual curiosity perspective, what kind of mathematics occupations exist in different cultures, and to create activities for the curriculum by examining concepts such as cultural mathematics differences and ethnomathematics. | | | | | | | |
| 19 | Contribution of the Course to Professional Development: | Creates and develops the knowledge base of the prospective teacher. Comprehends the concepts related to the field and the relations between concepts based on the competencies gained in secondary education. Have defines and analyzes problems related to his field, and develops solutions based on evidence and research. | | | | | | | |
| 20 | Learning Outcomes: | | | | | | | | |
| | | 1 | Knows the relationship between mathematics and culture. | | | | | | |
| | | 2 | Explain how mathematical concepts develop in different cultural settings. | | | | | | |
| | | 3 | Can explain the mathematical thinking structures of different cultures | | | | | | |
| | | 4 | Explain the importance of language, anthropology and logic in the development of mathematical thinking. | | | | | | |
| | | 5 | Makes mathematical activities using the perspectives of different cultures. | | | | | | |
| | | 6 | | | | | | | |
| | | 7 | | | | | | | |
| | | 8 | | | | | | | |
| | | 9 | | | | | | | |
| | | 10 | <u> </u> | | | | | | |
| 21 | Course Content: | | | | | | | | |
| | | Co | urse Content: | | | | | | |
| Week | Theoretical | | Practice | | | | | | |
| 1 | Mathematics and culture relationship | C | | | | | | | |

| - | different cultural settings | pts in | | | | | |
|--|--|---|--|---|--|--|--|
| 3 | The importance of concepts such as theorems, proofs and problem solving mathematics | g for | | | | | |
| 4 | Mathematical thinking structures of d cultures (Babylon, Ancient Egypt, An China etc.) | ifferent cient | | | | | |
| 5 | Mathematical thinking structures of d cultures (Ancient Greek, Islamic civili etc.) | ifferent zations | | | | | |
| 6 | Basic principles of research in the fie ethnomatics | ld of | | | | | |
| 7 | Examination of researches in the field ethnomatics | d of | | | | | |
| 8 | Examination of researches in the field ethnomatics | d of | | | | | |
| 9 | Examination of researches in the field ethnomatics | d of | | | | | |
| 10 | Relationship between mathematics- anthropology-linguistics-logic | | | | | | |
| 11 | Examining activities for different cultuperspectives | ıral | | | | | |
| 12 | Examining activities for different cultuperspectives | ıral | | | | | |
| 13 | Designing math activities using persp | oectives | | | | | |
| Activit | es | | Ν | lumber | Duration (hour) Total Wo Load (ho | | |
| Th pep re | ipaktbooks, References and/or Other | | 1)1 | Archer, M. (2005). "Et | aconatematik: Mate | 2729 (IIIO | |
| Practica | als/Labs | | 0 | | 0.00 | 0.00 | |
| Self stu | dy and preperation | | Tar | ihsel Gelişimi" (Tanır | n jajo ve Tarihsel Ge | b iş⊴inob eriyle | |
| Homew | vorks | | 4 | tomotikool Kovromlor | 5.00 | 20.00 | |
| Droject | | | | $\sum^{2} A_{ma} = \sum^{2} A_{ma} = \sum^{2$ | h Withat is ethnoma | | |
| Project | 6 | | 30 | \mathcal{O} Ambrosio, \mathcal{O} . (2001 | | thematics, and | |
| Field St | tudies | | 3]0 500 500 0 | p Ambrosio, U. (2001 <u>v con it holp childron</u>) | 0.00 | thematics, and 0.00 | |
| Field St Midtern | tudies h exams | | 3)0 0 4)1 | Larson, C. (1997). Et | 0.00 0.00 nong thematics, U | bennatics, and 0.00 nivensity of | |
| Field Si Midtern Others | tudies n exams | | 4)1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Larson, C. (1997). Ett | 0.00 0.00 0.00 0.00 | bematics, and 0.00 hypensity of 0.00 | |
| Field St Midtern Others Final E | e tudies h exams kams | | 4)1 0 4)1 0 Eth | Larson, C. (1997). Eti braska Lincoln nomathematics: Cog | 0.00 no.00 no.00 nitive anthoropolog | bematics, and 0.00 hypersity of 0.00 hgabbistoric, | |
| Field Si Midtern Others Final E Total W | r tudies h exams kams /ork Load | | 0 4 4 0 Eth | arson, C. (1997). Eth arson, C. (1997). Eth bracka Lincoln nomathematics: Cog | 0.00 no motion anthoropolog | bematics, and 0.00 niversity of 0.00 inabolistoric, 47 120.00 | |
| Field Si Midtern Others Final E Total W Total w | tudies h exams kams /ork Load ork load/ 30 hr | | 3.0 4.1 4.1 1 1 1 1 1 1 1 | Larson, C. (1997). Eth bracka Lincolo nomathematics: Cog cocio-cultural bases thematical thoughts i | 0.00 nonocitie askabala Taashi 0.00 nonocitie anthoropolog DNA 12 4 220-2 n multiculturalism, Fromathematica 7 1 | bematics, and 0.00 niversity of 0.00 inabolistoric, 47 120.00 Revista 171-184 | |
| Field Si Midtern Others Final E Total W Total w ECTS 0 | tudies h exams kams /ork Load ork load/ 30 hr Credit of the Course | | | Larson, C. (1997). Eth momathematics: Cog socio-cultural bases thematical thoughts i | 0.00 nomethematics, U 0.00 nitive anthoropolog DNA 12 4 220 2 n multiculturalism, F | bematics, and 0.00 hypersity of 0.00 homestaric, 120.00 Revista 171-184 4.00 | |
| Field Si Midtern Others Final E: Total W ECTS O | tudies h exams kams /ork Load ork load/ 30 hr Credit of the Course EARNING ACTIVITIES | NUMBE | 30 4)1 10 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 | Ambrosio, O. (2001 Larson, C. (1997). Eth bracka Lincolo momathematics: Cog Leocio-cultural bases thematical thoughts i incamericana de Eth | 0.00 no.00 no.00 nitive, anthoropolog DNA 12 4 220 n multiculturalism, F | bematics, and 0.00 hypersity of 0.00 hypersity of 0.00 hypersity of 120.00 keyista 171-184 4.00 | |
| Field Si Midtern Others Final E Total W Total W ECTS C TERM L Midtern | tudies tudies h exams kams /ork Load ork load/ 30 hr Credit of the Course .EARNING ACTIVITIES | NUMBE R 1 | 3,0 0 4,1 1 1 | Ambrosio, O. (2001 Larson, C. (1997). Eth bracka Lincolo momathematics: Cog t socio-cultural bases thematical thoughts i incamericana de Eth | 0.00 no.00 no.00 nitive anthoropolog Did 12 4 220-2 n multiculturalism, F | bematics, and 0.00 niversity of 0.00 igaboristoric, 47 120.00 kevista 171-184 4.00 | |
| Field Si Midtern Others Final E Total W ECTS C TERM L Midtern Quiz | tudies tudies tudies to exams tams to exams to exams to exams to exams to exams to exam to exa | NUMBE R 1 0 | 3,0 4,1 0 4,1 0 С т 1 1 | Ambrosio, O. (2001 Larson, C. (1997). Ether bracka Lincolo nomathematics: Cog Socio-cultural bases thematical thoughts i incomericana de Ether IGHT 00 | 0.00 nomethematics, U 0.00 nitive anthoropolog DNA 12 4 220-2 n multiculturalism, F | bematics, and 0.00 hypersity of 0.00 homes of the second seco | |
| Field Si Midtern Others Final E: Total W ECTS O TERM L Midtern Quiz Home w | tudies tudies tudies tudies texams texams tork Load ork load/ 30 hr Credit of the Course texam texam texam texam texam texam | NUMBE R 1 0 0 | 3,0 4,1 1,1 1,1 1,1 1,1 1,1 1,1 1 | Ambrosio, O. (2001 Larson, C. (1997). Eth bracka Lincoln inomathematics: Cog socio-cultural based thematical thoughts i inoamericana de Eth IGHT 00 0 | 0.00 nomethematics, U 0.00 nitive anthoropolog DNA 12 4 220-2 n multiculturalism, F | bematics, and 0.00 hypersity of 0.00 hypersity of 0.00 hyper | |
| Field Si Midtern Others Final E: Total W Total W ECTS O TERM L Midtern Quiz Home W Final E: | <pre>b tudies tudies h exams kams /ork Load ork load/ 30 hr Credit of the Course EARNING ACTIVITIES n Exam work-project xam</pre> | NUMBE R 1 0 0 1 | 3 0 4 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Ambrosio, O. (2001 -arson, C. (1997). Eth brocka Lincolo momathematics: Cog t socio-cultural bases thematical thoughts i incomericana de Eth IGHT 00 0 0 0 00 | 0.00 nomonological contraction of the second of the secon | bematics, and 0.00 hypersity of 0.00 homesity o | |
| Field Si Midtern Others Final E Total W ECTS O TERM L Midtern Quiz Home W Final E Total | tudies tudies tudies tudies texams te | NUMBE R 1 0 0 1 2 | 3,0 4,1 1,1 1,1 1,1 1,1 1,1 1,1 1 | Ambrosio, O. (2001 -arson, C. (1997). Ether -arson, C. (1997). Ether | 0.00 nondecide Teachi 0.00 nondecide Teachi 0.00 nitive anthoropolog DNIA 12 4 220-2 n multiculturalism, From the mathematica 7 1 | bematics, and 0.00 iversity of 0.00 interpreta 120.00 Revista 171-184 4.00 | |
| Field Si Midtern Others Final E Total W Total W ECTS O TERM L Midtern Quiz Home W Final E Total Contrib Succes | tudies tudies tudies tudies texams to exams to exams to exams to exams to exam | NUMBE R 1 0 0 1 2 2 es to | 3 0 4 1 0 0 E 1 Ma 1 I 1 40. 0.0 0.0 0.0 60. 100 40. 100 40. 100 | Ambrosio, O. (2001 -arson, C. (1997). Ether -arson, C. (1997). Ether | 0.00 nomethematics, U 0.00 nitive, anthoropolog DNIA 12 4 220-2 n multiculturalism, Fromathematica 7 1 | bematics, and 0.00 iversity of 0.00 interpretation 120.00 Revista 171-184 4.00 | |
| Field Si Midtern Others Final E: Total W ECTS O TERM L Midtern Quiz Home W Final E: Total Contrib Succes Contrib | tudies tudies tudies texams tams tork Load ork Load ork load/ 30 hr Credit of the Course teARNING ACTIVITIES The Exam tork-project texam tution of Term (Year) Learning Activities s Grade tution of Final Exam to Success Grade | NUMBE R 1 0 0 1 2 2 es to | 3 0 4) 1 0 0 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 40. 0.0 0.0 0.0 60. 100 40. 60. | Ambrosio, O. (2001 Larson, C. (1997). Ether Inomathematics: Cog Associo-cultural bases thematical thoughts i incamericana de Ether IGHT 00 0 0 0 0 0 0 0 0 0 0 0 0 | 0.00 nomethematics, U 0.00 pitive anthoropolog DNA 12 4 220-2 n multiculturalism, From the matter 7 1 | bematics, and 0.00 iversity of 0.00 inal-bistoric, 17 120.00 Revista 171-184 4.00 | |

| Measurement and Evaluation Techniques Used in the | Techniques such as lecture, discussion, question-answer, |
|---|--|
| Course | 3E are used in the teaching of the course. Midterm and |
| | final exams are taken into consideration in the |
| | measurement and evaluation of the course. |

24 ECTS / WORK LOAD TABLE

| 25 | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS | | | | | | | | | | | | | | | |
|--|--|-----|-----|-------|-----|-----|----------|-----|-----|----------|------|------|-------------|------|------|------|
| | PQ1 | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ1 0 | PQ11 | PQ12 | PQ1 3 | PQ14 | PQ15 | PQ16 |
| ÖK1 | 3 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK2 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LO: Learning Objectives PQ: Program Qualifications | | | | | | | | | | | | | | | | |
| Contrib ution Level: | b 1 very low : | | | 2 low | | | 3 Medium | | | 4 High | | | 5 Very High | | | |