| HISTORY OF MATHEMATICS |   |  |  |  |  |  |  |  |  |  |
|------------------------|---|--|--|--|--|--|--|--|--|--|
| 1                      | Course Title:   | HISTOR   | Y OF MATHEMATICS   |  |  |  |  |  |  |  |
| 2                      | Course Code:  | MAT303   | 6  |  |  |  |  |  |  |  |
| 3                      | Type of Course:   | Optional   |  |  |  |  |  |  |  |  |
| 4                      | Level of Course:  | First Cyc  | cle  |  |  |  |  |  |  |  |
| 5                      | Year of Study:  | 3  |  |  |  |  |  |  |  |  |
| 6                      | Semester:   | 6  |  |  |  |  |  |  |  |  |
| 7                      | ECTS Credits Allocated:                                 | 5.00   |  |  |  |  |  |  |  |  |
| 8                      | Theoretical (hour/week):                                | 3.00   |  |  |  |  |  |  |  |  |
| 9                      | Practice (hour/week):                                   | 0.00   |  |  |  |  |  |  |  |  |
| 10                     | Laboratory (hour/week):                                 | 0  |  |  |  |  |  |  |  |  |
| 11                     | Prerequisites:  | None   |  |  |  |  |  |  |  |  |
| 12                     | Language:   | Turkish  |  |  |  |  |  |  |  |  |
| 13                     | Mode of Delivery:                                       | Face to  | face   |  |  |  |  |  |  |  |
| 14                     | Course Coordinator:                                     | Prof. Dr.  | BASRİ ÇELİK  |  |  |  |  |  |  |  |
| 15                     | Course Lecturers:                                       |  |  |  |  |  |  |  |  |  |
| 16                     | Contact information of the Course Coordinator:          | basri@u<br>0224.29   | ludag.edu.tr<br>41762  |  |  |  |  |  |  |  |
| 17                     | Website:  |  |  |  |  |  |  |  |  |  |
| 18                     | Objective of the Course:                                | Recognize the important events and people in the history of mathematics. |  |  |  |  |  |  |  |  |
| 19                     | Contribution of the Course to Professional Development: |  |  |  |  |  |  |  |  |  |
| 20                     | Learning Outcomes:                                      |  |  |  |  |  |  |  |  |  |
|                        |   | 1  | Knows the basic concepts of the history of mathematics.  |  |  |  |  |  |  |  |
|                        |   | 2  | Learns the historical development of the numerals and numbers.   |  |  |  |  |  |  |  |
|                        |   | 3  | Learns the contents of the papyruses Rhind and Moscow understands the importance of them.              |  |  |  |  |  |  |  |
|                        |   | 4  | Learns the historical development of the number Pi.  |  |  |  |  |  |  |  |
|                        |   | 5  | Recognizes the Indian mathematician Aryabhata's works and his roles the developing of the mathematics. |  |  |  |  |  |  |  |
|                        |   | 6  | Learns to comprehensive information about Diyophant, Euclid and Pythagoras.                            |  |  |  |  |  |  |  |
|                        |   | 7  | Learns to approach of Ibn-i Turk to the solution of quadratic equations.                               |  |  |  |  |  |  |  |
|                        |   | 8  | Learns to life and mathematical works of Khwarizmi and Omar Khayyam.                                   |  |  |  |  |  |  |  |
|                        |   | 9  | Learn the history of set theory.   |  |  |  |  |  |  |  |
|                        |   | 10   |  |  |  |  |  |  |  |  |
| 21                     | Course Content:   |  |  |  |  |  |  |  |  |  |
| ١٨/ :                  | The area Cont   | Co   | ourse Content:   |  |  |  |  |  |  |  |
|                        |   |  | Practice   |  |  |  |  |  |  |  |
| 1                      | Description of course.                                  |  |  |  |  |  |  |  |  |  |
| 2                      | What is mathematics and history of mathematics?         | d  |  |  |  |  |  |  |  |  |
| 3                      | Historical development of numerals a numbers.           | and  |  |  |  |  |  |  |  |  |

|                             | The ellipsed on the control of the c |                 |  |  |  |  |  |  |
|-----------------------------|--|-----------------|--|--|--|--|--|--|
| 4                           | The oldest known documents in the he mathematics: Rhind and Moscow Pa  |                 |  |  |  |  |  |  |
| 5                           | Historical developments of the number  | er Pi.          |  |  |  |  |  |  |
| 6                           | An ancient Indian mathematician and astronomer: Aryabhata.   | l               |  |  |  |  |  |  |
| 7                           | Benefits of Diyophant to the world of mathematics.   |                 |  |  |  |  |  |  |
| 8                           | Euclidian geometry and benefits of E geometries to the mathematical world  | uclid<br>d.     |  |  |  |  |  |  |
| 9                           | Midterm and feedback   |                 |  |  |  |  |  |  |
| 10                          | Pythagoras and his era. Approach to solution of quadratic equations of Ibn   | the<br>-i Turk. |  |  |  |  |  |  |
| 11                          | Khwarizmi's life and contributions to t of mathematics.  | the world       |  |  |  |  |  |  |
| 12                          | The history of set theory.   |                 |  |  |  |  |  |  |
| 13                          | Math-related works of Omar Khayyar   | n.              |  |  |  |  |  |  |
| 14                          | Viewing a documentary about the his mathematics.   | tory of         |  |  |  |  |  |  |
| 22                          | Textbooks, References and/or Other Materials:  |                 | <ul> <li>)Basri Çelik, İ. Naci Cangül - ders notları-</li> <li>2)Matematik Tarihi, Lütfi Göker, Kültür Bakanlığı Yayınları, Yayın No:1017, 1989, Ankara.</li> <li>3)Bilim Tarihine Giriş, Sevim Tekeli, Esin Kahya, Melek Dosay, Remzi Demir, Hüseyin G. Topdemir, Yavuz Unat, Ayten Koç Aydın, Nobel Yayınevi, 4. Baskı, 2007, Ankara.</li> </ul> |  |  |  |  |  |
| 23                          | Assesment  |                 |  |  |  |  |  |  |
| TERM L                      | EARNING ACTIVITIES   | NUMBE<br>R      | WEIGHT   |  |  |  |  |  |
| Midtern                     | n Exam   | 1               | 40.00  |  |  |  |  |  |
| Quiz                        |  | 0               | 0.00   |  |  |  |  |  |
| Home v                      | vork-project   | 0               | 0.00   |  |  |  |  |  |
| Final E                     | xam  | 1               | 60.00  |  |  |  |  |  |
| Total                       |  | 2               | 100.00   |  |  |  |  |  |
|                             | ution of Term (Year) Learning Activities<br>s Grade  | es to           | 40.00  |  |  |  |  |  |
| Contrib                     | ution of Final Exam to Success Grade   | )               | 60.00  |  |  |  |  |  |
| Total                       |  |                 | 100.00   |  |  |  |  |  |
| Measur<br>Course            | rement and Evaluation Techniques Us  | sed in the      |  |  |  |  |  |  |
| 24                          | ECTS / WORK LOAD TABLE   |                 |  |  |  |  |  |  |
| Contrib Total Measur Course | ution of Final Exam to Success Grade   |                 | 100.00   |  |  |  |  |  |

| Activites                  | Number | Duration (hour) | Total Work<br>Load (hour) |
|----------------------------|--------|-----------------|---------------------------|
| Theoretical                | 14     | 3.00            | 42.00                     |
| Practicals/Labs            | 0      | 0.00            | 0.00                      |
| Self study and preperation | 14     | 5.00            | 70.00                     |
| Homeworks                  | 0      | 0.00            | 0.00                      |
| Projects                   | 0      | 0.00            | 0.00                      |
| Field Studies              | 0      | 0.00            | 0.00                      |
| Midterm exams              | 1      | 4.00            | 4.00                      |
| Others                     | 14     | 2.00            | 28.00                     |
| Final Exams                | 1      | 6.00            | 6.00                      |
| Total Work Load            |        |                 | 150.00                    |
| Total work load/ 30 hr     |        |                 | 5.00                      |
| ECTS Credit of the Course  |        |                 | 5.00                      |

| 25   | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS |     |     |       |     |     |      |     |        |          |             |      |     |      |      |      |
|--|---|-----|-----|-------|-----|-----|------|-----|--------|----------|-------------|------|-----|------|------|------|
|  | PQ1   | PQ2 | PQ3 | PQ4   | PQ5 | PQ6 | PQ7  | PQ8 | PQ9    | PQ1<br>0 | PQ11        | PQ12 | PQ1 | PQ14 | PQ15 | PQ16 |
| ÖK1  | 2   | 5   | 1   | 4     | 5   | 1   | 1    | 3   | 4      | 2        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK2  | 3   | 4   | 1   | 2     | 4   | 1   | 2    | 2   | 5      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK3  | 1   | 5   | 1   | 3     | 4   | 1   | 2    | 3   | 5      | 2        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK4  | 2   | 4   | 1   | 1     | 4   | 1   | 2    | 2   | 3      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK5  | 2   | 5   | 1   | 2     | 5   | 1   | 1    | 2   | 4      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK6  | 1   | 4   | 1   | 3     | 4   | 1   | 2    | 3   | 4      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK7  | 3   | 5   | 1   | 3     | 5   | 1   | 3    | 2   | 3      | 2        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK8  | 1   | 3   | 1   | 2     | 4   | 1   | 3    | 3   | 5      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| ÖK9  | 2   | 4   | 1   | 4     | 4   | 1   | 2    | 2   | 5      | 1        | 0           | 0    | 0   | 0    | 0    | 0    |
| LO: Learning Objectives PQ: Program Qualifications |   |     |     |       |     |     |      |     |        |          |             |      |     |      |      |      |
| Contrib 1 very low ution Level:                    |   |     |     | 2 low |     | 3   | Medi | ium | 4 High |          | 5 Very High |      |     |      |      |      |