

【 Department of Applied Mathematics 】

2018 Bachelor's degree Courses Time Table :

| Classification | No. | Course Code | Subject | Required/ Selected | Credit | Hours | Grade |
|----------------|-----|-------------|--|-----------------------|--------|-------|-------|
| Required | 1 | KO1186 | Calculus(Including Practice) (I) | Required | 4 | 6 | 1 |
| | 2 | KO1192 | Calculus(Including Practice) (II) | Required | 4 | 6 | 1 |
| | 3 | KO1185 | LinearAlgebra(Including Practice) (I) | Required | 3 | 5 | 1 |
| | 4 | KO1191 | LinearAlgebra(Including Practice) (II) | Required | 3 | 5 | 1 |
| | 5 | KO1207 | Advanced Calculus(including practice)(I) | Required | 4 | 6 | 2 |
| | 6 | KO1208 | Advanced Calculus(including practice) (II) | Required | 4 | 6 | 2 |
| | 7 | KO1209 | Algebra(Including Practice) (I) | Required | 3 | 4 | 2 |
| | 8 | KO1210 | Algebra(Including Practice) (II) | Required | 3 | 4 | 2 |
| | 9 | KO1219 | Elements of Complex Variables(Including Practice) (I) | Required | 3 | 4 | 3 |
| | 10 | KO1220 | Elements of Complex Variables(Including Practice) (II) | Required | 3 | 4 | 3 |
| | 11 | KO1203 | Probability and Statistics (Including Practice) (I) | Required | 3 | 4 | 3 |
| | 12 | KO1204 | Probability and Statistics (Including Practice) (II) | Required | 3 | 4 | 3 |
| | 13 | KO1152 | General Physics (I) | Required | 3 | 3 | 1 |
| | 14 | KO1153 | General Physics (II) | Required | 3 | 3 | 1 |
| | 15 | KO1150 | Introduction to Computer | Required | 3 | 3 | 1 |

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|----------------|-----|-------------|---|-----------------------|--------|-------|-------|
| | 16 | KO1032 | The Development of Mathematics Concept(I) | Required | 2 | 2 | 1 |
| Selected | 17 | KO1086 | Introduction to Mathematics | Required | 3 | 3 | 1 |
| | 18 | KO1031 | Elementary Number Theory | Required | 3 | 3 | 1 |
| | 19 | KO1198 | Vector Calculus | Required | 3 | 3 | 2 |
| | 20 | KO1230 | Matrix Analysis(I) | Required | 3 | 3 | 2 |
| | 21 | KO1231 | Matrix Analysis(II) | Required | 3 | 3 | 2 |
| | 22 | KO1085 | Vector Analysis | Required | 3 | 3 | 2 |
| | 23 | KO1222 | Mathematics and Computer | Required | 3 | 3 | 2 |
| | 24 | KO1157 | Introduction to Analysis | Required | 3 | 3 | 3 |
| | 25 | KO1058 | Geometry(I) | Required | 3 | 3 | 3 |
| | 26 | KO1059 | Geometry (II) | Required | 3 | 3 | 3 |
| | 27 | KO1202 | Advanced Linear Algebra | Required | 3 | 3 | 3 |
| | 28 | KO1201 | Elements of Real Variables | Required | 3 | 3 | 4 |
| | 29 | KO1223 | History of Mathematics | Required | 3 | 3 | 4 |
| | 30 | | Others | | | | |

First Minor Program of Program of Applied Mathematics :

| Classification | No. | Course Code | Subject | Required/ Selected | Credit | Hours | Grade |
|----------------|-----|-------------|--|-----------------------|--------|-------|-------|
| Required | 1 | KO1155 | Computer Programming | Required | 3 | 3 | 2 |
| | 2 | KO1182 | Differential Equations(Including Practice) | Required | 3 | 4 | 2 |
| | 3 | KO1140 | Discrete Mathematics(Including Practice) | Required | 3 | 4 | 2 |
| | 4 | KO1118 | Numerical Analysis | Required | 3 | 3 | 3 |
| Selected | 5 | KO1022 | Data Structure | Selected | 3 | 3 | 2 |
| | 6 | KO1158 | Introduction to Dynamical Systems | Selected | 3 | 3 | 2 |
| | 7 | KO1181 | Object-oriented Programming | Selected | 3 | 3 | 2 |
| | 8 | KO1095 | Fundamental Graph Theory | Selected | 3 | 3 | 3 |
| | 9 | KO1079 | Operation Research | Selected | 3 | 3 | 3 |
| | 10 | KO1183 | Algorithm | Selected | 3 | 3 | 3 |
| | 11 | KO1217 | Coding Theory | Selected | 3 | 3 | 3 |
| | 12 | KO1224 | Mathematical Biology | Selected | 3 | 3 | 3 |
| | 13 | KO1229 | Game Theory | Selected | 3 | 3 | 3 |
| | 14 | KO1227 | Introduction to Cryptography | Selected | 3 | 3 | 3 |
| | 15 | KO1119 | Combinatorics | Selected | 3 | 3 | 3 |
| | 16 | KO1122 | Topics in Operation Research | Selected | 3 | 3 | 3 |
| | 17 | KO1188 | Communications and Networks | Selected | 3 | 3 | 3 |
| | 18 | KO1197 | Introduction to Partial Differential Equations | Selected | 3 | 3 | 3 |

| Classification | No. | Course Code | Subject | Required/ Selected | Credit | Hours | Grade |
|----------------|-----|-------------|---------------------------------------|-----------------------|--------|-------|-------|
| | 19 | KO1199 | Chaotic Dynamical Systems | Selected | 3 | 3 | 3 |
| | 20 | KO1205 | Numerical Linear Algebra | Selected | 3 | 3 | 3 |
| | 21 | KO1221 | Mathematical Programming | Selected | 3 | 3 | 3 |
| | 22 | KO1193 | Independent Study (I) | Selected | 2 | 2 | 3 |
| | 23 | KO1206 | Independent Study (II) | Selected | 2 | 2 | 4 |
| | 24 | KO1124 | Introduction of Financial Mathematics | Selected | 3 | 3 | 4 |
| | 25 | KO1146 | Stochastic Process | Selected | 3 | 3 | 4 |
| | 26 | KO1232 | Introduction to Applied Mathematics | Selected | 3 | 3 | 4 |
| | 27 | KO1125 | Application of Financial Mathematics | Selected | 3 | 3 | 4 |
| | 28 | KO1189 | Introduction to Scientific Computing | Selected | 3 | 3 | 4 |
| | 29 | | Others | | | | |

Second Minor Program of Applied Mathematics Education

| Classification | No | Course Code | Subject | Required/ Selected | Credit | Hours | Grade |
|----------------|----|-------------|--|-----------------------|--------|-------|-------|
| Required | 1 | KO1148 | Introduction to Mathematical Education | Required | 2 | 2 | 2 |
| | 2 | KO1184 | Mathematics Content Analysis in Elementary and Junior High School (I) | Required | 2 | 2 | 2 |
| | 3 | KO1200 | Mathematics Content Analysis in Elementary and Junior High School (II) | Required | 2 | 2 | 3 |
| | 4 | KO1120 | The Psychology of Mathematics Learning | Required | 3 | 3 | 3 |
| | 5 | KO1193 | Independent Study (I) | Required | 2 | 2 | 3 |
| | 6 | KO1206 | Independent Study (II) | Required | 2 | 2 | 4 |
| Selected | 7 | KO1057 | The Development of Mathematics Concept(II) | Selected | 2 | 2 | 2 |
| | 8 | KO1226 | Game Design of Graph Theory | Selected | 3 | 3 | 2 |
| | 9 | KO1127 | Mathematics Gifted Education | Selected | 3 | 3 | 3 |
| | 10 | KO1139 | Mathematical Education Literature Review | Selected | 2 | 2 | 3 |
| | 11 | KO1149 | Philosophy of Mathematics Education | Selected | 2 | 2 | 3 |
| | 12 | KO1077 | Evaluation of Mathematics Teaching | Selected | 3 | 3 | 3 |
| | 13 | KK1144 | Design of Mathematics Curriculum | Selected | 3 | 3 | 3 |
| | 14 | KO1147 | Diagnosis of Mathematics Learning | Selected | 3 | 3 | 3 |

| Classification | No | Course Code | Subject | Required/ Selected | Credit | Hours | Grade |
|----------------|----|-------------|---|-----------------------|--------|-------|-------|
| | 15 | KO3100 | Mathematical thinking and problem solving | Selected | 3 | 3 | 3 |
| | 16 | KO1123 | Teaching Design of CAI in Mathematics | Selected | 3 | 3 | 4 |
| | 17 | KO1143 | Teaching Practice in Mathematics | Selected | 3 | 3 | 4 |
| | 18 | | Others | | | | |