Majmaah University

Mathematics Programme Study Plane

| Year | Course Code | Course Title | Required or Elective | $\begin{aligned} & \text { * Pre- } \\ & \text { Requisite } \end{aligned}$ Courses | Credit <br> Hours | College or Department Or <br> University |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st Year       <br> Semester 1       |  |  |  |  |  |  |
| Level 1 | - | University Requirement | Elective | None | 2 | University |
|  | - | University Requirement | Elective | None | 2 | University |
|  | - | University Requirement | Elective | None | 2 | University |
|  | EDU 116 | Teaching techniques and Communication skills | Required | None | 2 | College |
|  | EDU 117 | Fundamentals of Islamic Education | Required | None | 2 | College |
|  | EDU 118 | The System and Policy of Education in KSA | Required | None | 2 | College |
|  | $\begin{gathered} \text { MATH } \\ 111 \end{gathered}$ | Calculus (1) | Required | None | $\begin{gathered} 2 \\ (1+2) \end{gathered}$ | Department |
|  | PHYS 111 | General physics(1) | Required | None | $\begin{gathered} 2 \\ (1+2) \end{gathered}$ | Department |
|  | CHEM11 1 | General chemistry (1) | Required | None | $\begin{gathered} 2 \\ (1+2) \end{gathered}$ | Department |
| $\begin{aligned} & \text { 1st Year } \\ & \text { Semester } 2 \end{aligned}$ |  |  |  |  |  |  |
| Level 2 | - | University Requirement | Elective | None | 2 | University |
|  | EDU126 | Developmental Psychology | Required | None | 2 | College |
|  | $\begin{gathered} \text { MATH } \\ 121 \end{gathered}$ | Calculus (2) | Required | Pre-requisite MATH 111 | $4(3+2)$ | Department |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { MATH } \\ 124 \end{gathered}$ | Analytic Geometry | Required | None | 4(3+2) | Department |
|  | $\begin{gathered} \hline \text { MATH } \\ 122 \\ \hline \end{gathered}$ | The Foundations of Mathematics | Required | None | 3(2+2) | Department |
|  | STAT 123 | Principles of Statistics and Probability | Required | None | 3(2+2) | Department |
| 2nd Year Semester 1 |  |  |  |  |  |  |
| Level 3 | - | University Requirement | elective | None | 2 | University |
|  | EDU216 | Psychological Health | Required | Pre-requisite EDU126 | 2 | College |
|  | EDU217 | Principles of Educational Research | Required | None | 2 | College |
|  | $\begin{gathered} \text { MATH } \\ 212 \end{gathered}$ | Calculus in Several Variables | Required | Pre-requisite MATH 121 | 4(3+2) | Department |
|  | $\begin{gathered} \hline \text { MATH } \\ 214 \end{gathered}$ | Linear Algebra | Required | Pre-requisite MATH 122 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 213 \end{gathered}$ | Vector Analysis | Required | Synchronous <br> MATH 212 | 4(3+2) | Department |
| 2nd Year Semester 2 |  |  |  |  |  |  |
| Level 4 | - | University Requirement | Elective | None | 2 | University |
|  | EDU226 | Educational Psychology | Required | Pre-requisite EDU126 | 2 | College |
|  | STAT 223 | Principles of Probability Distribution Theory | Required | Prerequisite STAT 123 | 3(2+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 224 \end{gathered}$ | Introduction to ordinary Differential Equations | Required | Prerequisite <br> MATH 212 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 225 \end{gathered}$ | Statics | Required | Prerequisite MATH 213 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 222 \end{gathered}$ | Number Theory | Required | Prerequisite MATH 122 | 3(2+2) | Department |
| 3rd Year Semester 1 |  |  |  |  |  |  |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Level 5 | EDU316 | Administration and Educational Planning | Required |  | 2 | College |
|  | EDU317 | Production of Elearning resources | Required |  | 2 | College |
|  | $\begin{gathered} \hline \text { MATH } \\ 311 \end{gathered}$ | Numerical Analysis | Required | Prerequisite MATH 214 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 313 \\ \hline \end{gathered}$ | Mathematical Applications | Required | Prerequisite MATH 212 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 312 \end{gathered}$ | Real Analysis (1) | Required | Prerequisite MATH 224 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 314 \end{gathered}$ | Mathematics Lab | Required | - | 2(1+2) | Department |
| 3rd Year Semester 2 |  |  |  |  |  |  |
| Level 6 | EDU326 | Teaching <br> Strategies | Required | None | 2 | College |
|  | EDU327 | Curricula | Required | None | 2 | College |
|  | $\begin{gathered} \text { MATH } \\ 324 \\ \hline \end{gathered}$ | Mathematical Methods | Required | Pre-requisite MATH 224 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 327 \end{gathered}$ | Mathematical Applications on the Computer | Required | Pre-requisite MATH 311 | 3(2+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 322 \end{gathered}$ | Group Theory | Required | Prerequisite MATH 214 | 3(2+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 323 \end{gathered}$ | Introduction to Topology | Required | Prerequisite MATH 312 | 4(3+2) | Department |
| 4th Year Semester 1 |  |  |  |  |  |  |
| Level 7 | EDU416 | Modern Trends in Teaching Strategies | Required | Pre-requisite EDU326 | 2 | College |
|  | EDU417 | Educational Evaluation | Required |  | 2 | College |
|  | $\begin{gathered} \text { MATH } \\ 413 \\ \hline \end{gathered}$ | Complex <br> Analysis | Required | Prerequisite MATH 312 | 3(2+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 414 \end{gathered}$ | Rings and Fields | Required | Prerequisite MATH 322 | 3(2+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 415 \end{gathered}$ | Introduction to <br> Partial <br> Differential <br> Equations | Required | Prerequisite( <br> MATH 324 | 4(3+2) | Department |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { MATH } \\ 412 \\ \hline \end{gathered}$ | Real Analysis (2) | Required | Pre-requisite MATH 312 | 4(3+2) | Department |
| 4th Year Semester 2 |  |  |  |  |  |  |
| Level 8 | EDU 428 | Training course <br> (Math) | Required | Pre-requisite EDU 326 EDU 416 | $6(0+6)$ | College |
|  | $\begin{gathered} \hline \text { MATH } \\ 421 \end{gathered}$ | Differential Geometry | Required | Prerequisite MATH 224 | 4(3+2) | Department |
|  | $\begin{gathered} \text { MATH } \\ 423 \end{gathered}$ | Introduction in Functional Analysis | Required | Pre-requisite MATH 412 | 3(2+2) | Department |
|  | $\begin{gathered} \hline \text { MATH } \\ 424 \end{gathered}$ | Research project | Required | Complete 108 credit hours | 2(0+2) | Department |
|  | $\begin{gathered} \text { STAT } \\ 423 \end{gathered}$ | Introduction to statistical inference | Required | Pre-requisite STAT 223 | 3(2+2) | Department |
| Note: Courses below are in the plan as an elective university requirement courses with tow credit hours for each and the university shows how is the selection, which is 12 hours out of 26: |  |  |  |  |  |  |
| One of two |  | Two of seven |  | Three of four |  |  |
| Arabic language skills |  | Contemporary Social Issue |  | Introduction to Islamic Culture |  |  |
|  |  | Voluntary Work |  |  |  |  |
|  |  | Family and Childhood |  | Islam and Society building |  |  |
|  |  | English Language |  |  |  |  |
| Arabic Editing |  | Systems and human rights |  | Economic System in Islam |  |  |
|  |  | Businesses leadership |  |  |  |  |
|  |  | Health and Fitness Bases |  | Political System bases in Islam |  |  |

