NOTE: It is the student’s responsibility to read the atlas carefully. Not knowing this information is **NOT** an excuse. Failure to meet the prerequisites will result in withdrawal from the class.

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<td>1.</td>
<td>Biological Sciences</td>
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<td>Business Management</td>
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<td>Computer Science / IT</td>
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<td>Economics</td>
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<td>Education</td>
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<td>9.</td>
<td>Health &amp; Physical Education</td>
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<td>10.</td>
<td>History and Pakistan Studies</td>
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<td>11.</td>
<td>Mass Communication</td>
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<td>Mathematics</td>
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<td>13.</td>
<td>Philosophy</td>
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<td>14.</td>
<td>Physics</td>
<td>.................</td>
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<td>15.</td>
<td>Political Science</td>
<td>.................</td>
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<td>16.</td>
<td>Psychology</td>
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<td>Religious Studies</td>
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<td>Sociology</td>
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<td>19.</td>
<td>Statistics</td>
<td>.................</td>
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<td>20.</td>
<td>Urdu</td>
<td>.................</td>
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</tbody>
</table>
## General Education Mapping on Old Catalogs 2008-2010

Any course taken (including major courses) may fulfill these requirements

<table>
<thead>
<tr>
<th>1. Humanities</th>
<th>3 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ISLM 101</td>
<td>Must take one of these</td>
</tr>
<tr>
<td>2. CRST 152</td>
<td>1</td>
</tr>
</tbody>
</table>

2nd and 3rd Course from below:

| 1. English    |                      |
| 2. History    | 2                     |
| 3. Mass Communications |            |
| 4. Philosophy |                      |
| 5. Urdu       |                      |
| 6. Religious Studies |

<table>
<thead>
<tr>
<th>2. Social &amp; Behavioural Sciences</th>
<th>3 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pakistan Studies PKST 101</td>
<td>Must take this</td>
</tr>
</tbody>
</table>

2nd and 3rd Course from below:

| 1. Education  |                      |
| 2. Political Science |                |
| 3. Economics     | 2                     |
| 4. Geography     |                      |
| 5. Psychology    |                      |
| 6. Sociology     |                      |
| 7. Pakistan Studies |

<table>
<thead>
<tr>
<th>3. Physical &amp; Natural Sciences</th>
<th>3 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Physical Sciences</td>
<td></td>
</tr>
<tr>
<td>1. Chemistry</td>
<td>Must take one of these</td>
</tr>
<tr>
<td>2. Physics</td>
<td>1 with lab (4 Credits)</td>
</tr>
</tbody>
</table>

ii. Natural Sciences

| 1. Botany     |                      |
| 2. Zoology    | 2                     |
| 3. Biotechnology |                   |
| 4. Biological Sciences |
| 5. Chemistry  | Different from one above |
| 6. Physics    |                      |
| 7. Environmental Sciences |

<table>
<thead>
<tr>
<th>4. Mathematics and Computer Sc./ IT</th>
<th>3 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>2. Information Technology</td>
<td></td>
</tr>
</tbody>
</table>

ii. Math/Related

| 1. Mathematics | 2         |
| 2. Statistics  |           |
| 3. Computer Science/IT (only one additional course from this dept) | |

<table>
<thead>
<tr>
<th>5. Communications</th>
<th>4 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ENGL 101 Unless Exempt or replaced</td>
<td>All 4 must be taken</td>
</tr>
<tr>
<td>2. ENGL 103</td>
<td>4</td>
</tr>
<tr>
<td>3. URDU 101</td>
<td></td>
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<tr>
<td>4. MCOM 100</td>
<td></td>
</tr>
</tbody>
</table>
# General Education Mapping 2011 onwards

Any course taken (including major courses) may fulfill these requirements

<table>
<thead>
<tr>
<th>Humanities</th>
<th>6 courses</th>
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</thead>
<tbody>
<tr>
<td>1A. ISLM 101</td>
<td></td>
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<tr>
<td>1B. CRST 152</td>
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<tr>
<td>2. MCOM 100</td>
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<tr>
<td>3. ENGL 101</td>
<td>Unless Exempt or replaced</td>
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<tr>
<td>4. ENGL 103</td>
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<tr>
<td>5. URDU 101</td>
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</table>

6th Course from below

<table>
<thead>
<tr>
<th>Social &amp; Behavioural Sciences</th>
<th>3 Courses</th>
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</thead>
<tbody>
<tr>
<td>1. Pakistan Studies PKST 101</td>
<td></td>
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</tbody>
</table>

2nd and 3rd Courses from below

| 2. Education |  | |
| 3. Political Science |  | |
| 4. Economics | 2 | |
| 5. Geography |  | |
| 6. Psychology |  | |
| 7. Sociology |  | |

<table>
<thead>
<tr>
<th>Science and Mathematics</th>
<th>6 Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A. Biology</td>
<td>3</td>
</tr>
<tr>
<td>1B. Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>1C. Physics</td>
<td>1</td>
</tr>
<tr>
<td>2. Math</td>
<td>1</td>
</tr>
<tr>
<td>3. Computer Science</td>
<td>1</td>
</tr>
</tbody>
</table>

5th Course from Below

| 1. Botany |  | |
| 2. Zoology |  | |
| 3. Biotechnology |  | |
| 4. Biological Sciences |  | |
| 5. Environmental Sciences | 1 | |
| 6. Chemistry |  | |
| 7. Logic (PHIL 221) |  | |
| 8. Physics |  | |
| 9. Mathematics |  | |
| 10. Computer Science |  | |
| 11. Information Technology |  | |
| 12. Statistics |  | |

<table>
<thead>
<tr>
<th>Foundations of University Education</th>
<th>1 Course</th>
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<tbody>
<tr>
<td>1. UNIV 100</td>
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</table>

15 courses
BIOL 102: Introductory Plant Biology (4 credits)
Only for students who have studied biology in higher secondary school/A level or equivalent
Structure-function relationship of plants, basic principles of genetics and molecular genetics and Biotechnology and its use in modifying plants. Ecosystems, environmental issues, relevance of flowering plants in human life.

Section A  Monday to Friday 09:45-11:15  S-416  Dr. R. Siddiqi
LAB  Tuesday 01:15-03:05  S-331

BIOL 105: General Zoology (4 credits)
Only for students who have studied Biology in higher secondary school/A- Level or equivalent
The structure, functions, ecology and evolution of all major animal groups including invertebrates and chordates. The origin of multicellular forms and basic environmental factors affecting them.

Section A  Monday to Friday 08:00-09:30  S-416  Dr. K. Z. Rasib
LAB  Monday 01:15-03:05  S-341

BIOT 315: Genomics and Tools and Bioinformatics (4 credits)
Prerequisites: BIOT 313
Introduction to Genomics, techniques involved in studying of genomes i.e. manual and automated DNA sequencing, genotyping, mapping and assembling a genome, an introduction to pharmacogenomics, personal genomics, SNP, RFPL, microstellite DNA Markers, brief history and introduction of bioinformatics, use of online data banks for nucleic acids and protein analysis, prediction of attributes of proteins and nucleic acids on the basis of tabulated data, DNA microarray, proteomics and survey of a genome of a model organism using bioinformatics tools

Section A  Monday to Friday 09:45-11:15  S-417  Dr. M. Irfan
LAB  Monday 01:15-03:05  S-218

ENVR 101: Environmental Issues and Public Policy (2 credits)
Environmental degradation and global warming are issues of concern for sciences and stites worldwide. This core would familiarize students with basic concerns on Environmental science and policy. It will make a critical evaluation of national and international laws and policies on environment. Through general and basic readings on environmental issues and public policy the students will be encouraged to explore how societies and states are responding to the concerns of intersectional community environmental issues.

Section A  Monday to Friday 08:00-09:30  S-410  Dr. H. Saeed
LAB  Wednesday 01:15-03:05  S-329

ENVR 403: Occupational Health and Safety (3 credits)
Principles of occupational health at work, values system for industrial workers, OHS systems in different industrial sectors, components of OHS plan related to different activities such as industry, municipality etc, industrial hygiene and safety, accident prevention and elimination, safety equipments, pollution due to petroleum industry.

Section A  Monday to Friday 11:30-01:00  S-410  Dr. H. Saeed
LAB  Monday 01:015-03:05  S-329
CHEM / ENVR 440: Environmental Chemistry  (3+1 credits)
Open to Juniors and Seniors
Introduction to environment, air pollution, water pollution, noise pollution, solid waste pollution and environment, ecotoxicology, hazardous waste and its management.

Section A  Monday to Friday 11:30-01:00  S-215  Dr. M. Abbas
LAB  Thursday 01:015-03:05  S-126

ZOOL 305: Integrated Pest Management  (4 credits)
Prerequisite: BIOL 302
People, plants and pests, dynamics of pest population, intensive agriculture, pest problems, cultural control host plant resistance, parasitoids and predators, microbial control, botanical pest control, synthetic organic insecticides biotechnology approaches, bio-rational and other innovative approaches, IPM achievements, potential and challenges.

Section A  Monday to Friday 11:30-01:00  S-416  Dr. K. Z. Rasib
LAB  Wednesday 01:15-03:05  S-341

BIOL 497: Internship
Instructor’s permission required.
Students with CGPA of 2.75 or above will be eligible for internship. Students are required to sit for a test and appear in an interview. Internship will be allotted to the students on recommendation of the Departmental Committee. Duration of internship is from 6 to 8 weeks and it is usually offered in summer to Juniors.

Section A  Monday to Friday TBD  TBD  Dr. K. A. Malik

BIOL 499: Research
Instructor’s permission required.
Students with CPGA 2.75 or above will be eligible for research. Students are required to sit for a test and appear in an interview. Research will be allotted to the students on recommendation of the Departmental Committee. It is usually offered in summer to juniors.

Section A  Monday to Friday TBD  TBD  Dr. K. A. Malik

BIOT 498: Internship
Instructor’s permission required.
Students with CGPA of 2.75 or above will be eligible for internship. Internship will be allotted to the students on recommendation of the Departmental Committee. Duration of internship is from 6 to 8 weeks and it is usually offered in summer to Juniors.

Important Note:
Limited seats are available in BIOT 498 and BIOT 499. Registration in BIOT 498 and BIOT 499 requires students to appear in written test and interview. Only selected students will be allowed to register in these courses.

Section A  Monday to Friday TBD  TBD  Dr. K. A. Malik
BIOT 499: Research  
(6 credits)
Instructor’s permission required.
Students with CGPA 2.75 or above will be eligible for research.
Research will be allotted to the students on recommendation of the Departmental Committee. Research is usually offered in summer to juniors.

Important Note:
Limited seats are available in BIOT 498 and BIOT 499. Registration in BIOT 498 and BIOT 499 requires students to appear in written test and interview. Only selected students will be allowed to register in these courses.

Section A  Monday to Friday TBD  TBD  Dr. K. A. Malik

ENVR 498: Internship  
(6 credits)
Coordinator’s permission required
Students with CGPA 2.75 or above will be eligible for internship
The student will have to work in a well-known industry or organization for a minimum of 6 weeks and will observe the timings prescribed by the host organization. The Director Internships will act as a liaison officer between the department and the host organization. The student will have a supervisor from the department as well as from the host organization. At completion of the training, student will submit a written report to both the supervisors and the student’s internship will be evaluated by a departmental committee.

Section A  Monday to Friday TBD  TBD  TBD

ENVR 499: Project / Research  
(6 credits)
Coordinator’s permission required
Students with CGPA 2.75 or above will be eligible for this research project. Students with CGPA less than 2.75 will have to take two additional courses from electives of their concentration.

Section A  Monday to Friday TBD  TBD  TBD
BUSINESS

BUSN 101: Principles of Accounting  (3 credits)
Understanding accounting records, entering transactions, applying accounting concepts, principles and practices and reading financial statements.

Section A  Monday to Friday 08:00-09:30  E-025  B. H. Awan (ACA)

BUSN 201: Intermediate Accounting I  (3 credits)
Prerequisite: BUSN 101
Concepts\, standards and principal underlying various accounting practices and techniques, reporting requirements, group accounts and corporate financing.

Section A  Monday to Friday 09:45-11:15  E-102  B. H. Awan (ACA)

BUSN 390: Summer Internship  (6 credits)
All business students must undertake the internship in the summer after the junior years.

Section A  Monday to Friday TBD  TBD  S. Mazhar
CHEMISTRY

CHEM 100: Introduction to Chemistry (3+1 credits)
Open for those students who have not taken chemistry at Intermediate or A. Level
Chemistry as a basic science, matter and states of matter, elements and periodicity, atomic structure, concept of mole and elementary stoichiometric calculations, acids and basis, elementary redox reactions and electrochemical cells, organic functional groups and major classes of organic compounds and their importance, and environmental aspects of chemistry.

Section A  Monday to Friday 11:30-01:00  S-216  Dr. M. N. Asghar
Lab        Thursday 01:15-03:15  S-148

CHEM 150: Introduction to Inorganic Chemistry (3+1 credits)
Prerequisite: F.Sc. or A-Level Chemistry
Various theories of bonding including valence bond theory, molecular orbital theory, Werner’s theory, crystal/ligand field theory, thee center bonds, bonding theory of metal and intermetallic compounds, bonding in electron deficient compounds, hydrogen bonding, shapes of molecules (VSEPR model).

Section A  Monday to Friday 08:00-09:30  S-215  Dr. M. Al Rashida
Lab        Wednesday 01:15-03:15  S-138

CHEM 160: Introduction to Organic and Biochemistry (3+1 credits)
Prerequisite: F.Sc. or A-Level Chemistry
Bonding and structure of organic compounds, study of hydrocarbons including additions to multiple bonds and substitution reactions of benzene, petroleum products, chemistry of food and its components including carbohydrates, proteins, lipids, nutrition and caloric intake.

Section A  Monday to Friday 08:00-09:30  S-216  Dr. D. Ahmed
Lab        Thursday 01:15-03:15  S-138

Section B  Monday to Friday 08:00-09:30  S-116  Dr. S. Jelani
Lab        Monday 01:15-03:15  S-148

CHEM 261: Organic Chemistry I (3+1 credits)
Prerequisite: CHEM 160 or CHEM 260
Reaction mechanisms including free radical, electrophillic and nucleophillic substitution addition and elimination reaction; chemistry of alkyl halides, amines and organometallic compounds, catalytic reactions and their importance.

Section A  Monday to Friday 09:45-11:15  S-116  Dr. S. Jelani
Lab        Tuesday 01:15-03:15  S-135
CHEM 270: Thermodynamics and Equilibrium  (3+1 credits)
Prerequisite: CHEM 150 or CHEM 170
Chemical Thermodynamics: Second and Third laws of thermodynamics, concepts of entropy, Helmholtz and Gibbs Energy functions, Spontaneity and equilibrium, chemical potential system of variable composition, interrelationship of thermodynamic functions. Pleaser equilibrium: Clapeyron equation, solid-liquid, liquid-gas, solid gas equilibria, Please diagrams, Phase rule. Solutions: Ideal and non-ideal solutions, Raoult’s law, Colligative properties, Osmotic pressure, depression of freezing point elevation of boiling point

Section A  Monday to Friday 08:00-09:30  S-119  Dr. L. Amir
Lab       Wednesday 01:15-03:15  S-135

CHEM 311: Fundamental Analytical Chemistry  (3+1 credits)
Open to Junior and Senior Year Students
Gravimetric and volumetric methods of analysis including buffers, complexometric titrations, redox titration, non-aqueous titrations, Karl-Fischer titrations, UV / VIS spectroscopic analysis, IR Spectroscopy, treatment of measurement errors; usage and handling of standards, sampling precision, accuracy, signal-to-noise ratio, limits of detection and quantization, statistical evaluation of data; quality control and quality assurance.

Section A  Monday to Friday 09:45-11:15  S-119  Dr. M. N. Asghar
Lab       Monday 01:15-03:15  S-138

CHEM 320: Industrial Chemistry  (3+1 credits)
Open to Junior and Senior Year Students
Efficiency and yield, common chemical industries with special reference to Pakistan including cement, surfactants, paper and pulp, glass and ceramics, leathers, metallurgies of important metals, liquids crystals and inorganic polymers. Environmental industrial impacts and industrial environmental management.

Section A  Monday to Friday 09:45-11:15  S-216  Dr. M. Abbas
Lab       Tuesday 01:15-03:15  S-148

CHEM 330: Biochemistry  (3+1 credits)
Prerequisite: CHEM 160 or Equivalent
Detailed structure and physiological function of primary metabolites including carbohydrates, proteins, lipids and nucleic acids, nature and role of enzymes and coenzymes, metallo-proteins and enzymes, mechanism of enzyme action, kinetics and regulation of enzymes and their industrial applications.

Section A  Monday to Friday 09:45-11:15  S-215  Dr. A. Iqbal
Lab       Thursday 01:15-03:15  S-135

CHEM 361: Organic Chemistry II  (3+1 credits)
Prerequisite: CHEM 260 or 261
Study of carbonyl compounds including aldehydes, ketones, carboxylic acids, esters, amides, enolates and conjugate additions. Chemistry of vegetable oils and waxes.

Section A  Monday to Friday 11:30-01:00  S-119  Dr. A. Iqbal
Lab       Wednesday 01:15-03:15  S-148
CHEM 370: Kinetics & Mechanism (3+1 credits)
Prerequisite: CHEM 170
Chemical kinetics, first and second order reactions, reaction mechanism, unimolecular reactions, complex and chain reactions, theories of reaction rates, fast reactions reaction in solutions. Electrochemistry: electrode potential, ion selective electrodes, electrochemical cells, measurement of electrode potential, electrical work, temperature dependence of of cell potential, electrolysis, polarography, cyclic voltammetry, impedance. Surface chemistry: adsorption, chemisorptions, heterogeneous catalysis.

Section A  Monday to Friday 09:45-11:15  S-410  Dr. L. Amir
Lab       Monday 01:15-03:15    S-135

CHEM 462: Spectroscopy of Organic Compounds (3+1 credits)
Prerequisites: CHEM 260 or CHEM 261 or CHEM 361
Study of IR, Mass and NMR spectroscopy as tools of structure elucidation, functional groups identification by IR spectroscopy, fragmentation pattern of main classes of organic compounds, 1-D proton and C-13 NMR spectroscopy and fundamentals 2-D NMR techniques.

Section A  Monday to Friday 11:30-01:00  S-116  Dr. D. Ahmed
Lab       Tuesday 01:15-03:15    S-138

CHEM 498: Industrial Training (6 credits)
Open to Junior year students intending to major in Chemistry
Junior and Senior students with a minimum 2.75 CGPA can register for this course in summers. Registered students will take an off-campus Industrial training for 6-8 weeks in a reputed organization. At the end of the training the students need to submit a report on their work which will be evaluated by the department.

CHEM 499: Research Project (6 credits)
Open to Junior year students intending to major in Chemistry
Junior and senior students with minimum 2.5 CGPA can register for this course in semester. project must be completed and research thesis submitted within 6-7 months. Viva voce will be conducted after submission of the research thesis.
### COMPUTER SCIENCE / IT

#### COMP 200: Data Structures and Algorithms
(3 credits (2+2))
Prerequisite: COMP 111, COMP 113 or MATH 106
More sophisticated data structures and algorithms required to manipulate them, selection or construction of suitable data structures for a wide range of problems, analysis of the efficiency of chosen solutions, standard problems such as sorting and searching time and space complexity of computer programs.

| Section A | Monday to Friday 11:30-01:30 | S-219 | S. Shahid |

#### COMP 205: Introduction to Information Technology
(3 credits)
Prerequisite: COMP 102

| Section A | Monday to Friday 09:45-11:15 | S-316 | R. M. Ajmal |

#### COMP 206: Hardware Logic and Design
(3 credits (2+2))
Prerequisite: Math 101 or A-Level or Intermediate Mathematic
Fundamentals of hardware system design, beginning at the digital logic level with bits, binary representations and basic binary operations, combinational and sequential logic circuits, basic functional units, higher level computing functions, hardware description languages, basic elements of some real life architectures.

| Section A | Monday to Friday 09:45-11:15 | S-317 | A. H. Zahid |

#### COMP 213: Database Systems
(3 credits (2+2))
Prerequisite: COMP 200
Databases, various data models, data storage and retrieval techniques, and database design techniques, relational data model, the relational algebra as a basis for queries in SQL and normalization techniques to optimize database structure.

| Section A | Monday to Friday 11:30-01:30 | S-218 | S. Mahmood |

#### COMP 311: Computer Networks
(3 credits)
Prerequisite: COMP 301, STAT 102
Engineering concepts underlying computer communications, including analogue and digital transmission, circuit switching and packet switching, logic network structure and operations including network layers, network models (OSI, TCP / IP) and protocol standards, understanding of modern network concepts.

| Section A | Monday to Friday 11:30-01:00 | S-317 | A. H. Zahid |
CSCS 100: Introduction to Computing  (3 credits)
Not open to students registered in the BS (Computing) program
Introduction to computing environments, general applications software, computing hardware, operating systems, desktop publishing, internet, software applications and tools and computer usage concepts, introductions to software engineering and information technology within the broader domain of computing.

Section A  Monday to Friday 09:45-11:15  S-218  S. Shahid

CSSE 301: Software Engineering II  (3 credits)
Prerequisite: COMP 220
The course aims to provide the basis of the object oriented approach to software engineering, and basic concepts of agile methodologies risk management, configuration management, r-engineering and quality assurance. The focus of this course is on UML based development of artifacts which include domain models, system sequence diagrams, contracts, real use cases, interaction diagrams supported by GRASP pattern, and class diagrams.

Section A  Monday to Friday 08:00-09:30  S-218  S. Mahmood
ECONOMICS

ECON 100: Basic Economics (3 credits)
Economics Juniors and Seniors are not allowed to register for this course. Students who have not studied Economics at Intermediate should register for this course before ECON 101, 102. Students who have passed ECON 101 and/or ECON 102 are not allowed to register for this course. This course is counted towards General Education credits. Basic concepts of Economics such as demand, supply, allocation of resources, opportunity cost, national income, inflation, unemployment, international trade and development economics.

- **Section A**  Monday to Friday 08:00-09:30  E-222  Dr. U. Hanif
- **Section B**  Monday to Friday 08:00-09:30  E-204  A. J. Khan
- **Section C**  Monday to Friday 11:30-01:00  E-204  A. Anwar

ECON 101: Microeconomics I (3 credits)
Students cannot register for this course with or before ECON 100. Basic methods and subject matter of microeconomics, consumer behavior theory, producer theory, cost theory, output and price strategies under perfect and imperfect completion market structure.

- **Section A**  Monday to Friday 08:00-09:30  E-205  A. Anwar
- **Section B**  Monday to Friday 09:45-11:15  E-204  A. J. Khan

ECON 102: Macroeconomics (3 credits)
Students cannot register for this course with or before ECON 100. Key macroeconomic concepts, national income accounting, productivity, standard of living growth and public policy issues, introduction to consumption, saving and capital formation, inflation, unemployment, monetary system, quantity theory of money, introduction to monetary and fiscal policies.

- **Section A**  Monday to Friday 09:45-11:15  E-203  M. S. Ayyubi
- **Section B**  Monday to Friday 09:45-11:15  E-205  S. A. Abbas

ECON 103: Mathematics for Economists (3 credits)
Basic tools of mathematical economics and their application to economic analysis, nature of mathematical economics, real number system, set theory and economics, comparative static analysis, linear models and matrix algebra, tools of algebra and calculus, application of calculus in economics, optimization of one and multivariable functions, optimization with constraints and economic application of optimization.

- **Section A**  Monday to Friday 08:00-09:30  E-221  Dr. B. Aziz
- **Section B**  Monday to Friday 11:30-01:00  E-221  Dr. B. Aziz
ECON 201: Microeconomics II  
Prerequisites: ECON 101 and 103  
Continuation of Microeconomics I using mathematical models to analyze consumer theory, producer theory, firm behavior under perfect and imperfect market structure. Input markets with both perfect and imperfect competition.

Section A  Monday to Friday 09:45-11:15  E-221  Dr. B. Aziz

ECON 202: Macroeconomics II  
Prerequisites: ECON 102 and 103  
Classical and Keynesian economic theory policy, Derivation of AD and AS models and their implication for stabilization policies, short term and long term inflation-unemployment relationship, consumption and investment theories and economic growth, Growth accounting and convergence.

Section A  Monday to Friday 11:30-01:00  E-203  M. S. Ayyubi  
Section B  Monday to Friday 11:30-01:00  E-222  Dr. M. Akbar

ECON 203: Statistics for Economists  
Prerequisites: ECON 201, 202 and 203  
Application of statistics tools in economics, basic concepts and terminology of statistics, presentation of data, measures of central tendency, dispersion, shape and relationship, probability and probability distributions, random variables, probability density functions of discrete and continuous random variables, joint, marginal and conditional probability density functions, Bernoulli Binomial, Binomial, poisson, normal, X2, t, F definitions, properties and their relationship, sampling and sampling distributions, statistical inference: estimation and testing of hypothesis.

Section A  Monday to Friday 11:30-01:00  E-205  L. Saeed  
Section B  Monday to Friday 09:45-11:15  E-231  L. Saeed

ECON 206: Banking and Finance  
Prerequisite: ECON 102  
Concepts of conventional and interest free banking, financial system, credit creation, financial institutions and instruments, interest free Islamic banking and finance, principles of Islamic banking and finance, financial contracts, modes of financing, and contractual mechanisms.

Section A  Monday to Friday 08:00-09:30  E-213  Dr. R. Ahmed  
Section B  Monday to Friday 11:30-01:00  E-213  Dr. R. Ahmed  
Section C  Monday to Friday 09:45-11:15  E-213  Dr. R. Ahmed

ECON 300: Fundamentals of Econometrics  
Prerequisites: ECON 201, 202 and 203  
Regression analysis and ordinary least squares, dummy variable regression models, relaxing the assumption of classical model, multicollinearity heteroskedasticity, autocorrelation, right hand-side endogenous variables, WLS and GLS, model specification and diagnostic testing.

Section A  Monday to Friday 08:00-09:30  E-202  Dr. M. Akbar
ECON 302: Research Methods and Computer Applications (3 credits)
Prerequisite: ECON 300
Methods and methodologies of research used in Economics; Techniques of investigation; Data collection methods; Research design; Sampling; Report writing and use of econometric software.

Section A  Monday to Friday 11:30-01:00  E-214  Z. Iqbal

ECON 309: Econometric Methods (3 credits)
Prerequisite: ECON 300
Econometric Models and estimation problems that often arise in economic application, nonlinear regression models, approaches to estimating nonlinear models, qualitative response regression models, LPM, Logit, panel data regression models, fixed effect approach and random effect approach, simultaneous-equation models, simultaneous equation bias, identification problem, approaches to estimation (ILS, 2SLS).

Section A  Monday to Friday 08:00-09:30  E-214  Z. Iqbal

ECON 313: Monetary Theory (3 credits)
Prerequisite: ECON 202
Determinants of demand and supply of money and role of financial institutions, nature of monetary economics, money supply process and definition of monetary aggregates, theories of money demand, microeconomic determinants of demand for money for money, testing the demand for money, weakness of the link between the theory of the demand for money and the testing of it, monetary transmission mechanism, price surprises, central banking and the money supply.

Section A  Monday to Friday 09:45-11:15  E-202  Dr. T. Ahmed

ECON 315: Advanced Mathematical Economics (3 credits)
Prerequisite: ECON 103
Dynamics and integral calculus, definite and indefinite integral, proper and improper integral, economic application on integration, difference equation, differential equations and their economic applications, linear programming non-linear programming, Khun-tucker conditions and optimal control theory with applications.

Section A  Monday to Friday 11:30-01:00  E-231  A. Batool

ECON 402: Project Planning and Appraisal (3 credits)
Prerequisite: ECON 201
Project planning, its process, appraisal and evaluation with special reference to Pakistan technical, social, financial and economic analysis of projects, discounted measures of project worth i-e. BC Ratio, IRR, NPV etc., techniques used in time and resource management like CPM, PERT and WBS, project monitoring and sensitivity analysis, analysis of mega projects in Pakistan like Gwadar Deep Water Port., Lahore-Islamabad Motorway etc.

Section A  Monday to Friday 09:45-11:15  E-222  Dr. U. Hanif
ECON 408: Internship (6 Credits)
The internship is offered to the juniors / Seniors with CGPA 3.00 or higher. Credits will be granted for a full time internship of at least six weeks during summer vacations, internship credit is not retroactive and must be prearranged with the Chairperson of the department. the students must provide verification of the completion of internship on institution’s letterhead from the Head of the institution not later then one week after such completion. The grading for internship will be done by the Chairperson on the basis of the written report by the student.

Section A  Monday to Friday TBD  TBD  Dr. S. H. Syed

ECON 411: Development Policy (3 Credits)
Prerequisite: ECON 311
International debt, aid / assistance, debt crises and BOP, resource mobilization and industrialization rural development and migration, agricultural vs. industrial development, human capital and its development, development and crises, poverty and income distribution, environment and development.

Section A  Monday to Friday 08:00-09:30  E-203  S. A. Abbas

ECON 413: Monetary Policy (3 credits)
Prerequisite: ECON 313
Nature of monetary economics, money supply process and definition of monetary aggregates. Theories of money demands, microeconomics determinants of demand for money, testing the demand for money, the weakness of the links between the theory of the demand for money and the testing of it. Monetary transmission mechanism. Price surprise central banking and the Money supply.

Section A  Monday to Friday 11:30-01:00  E-202  Dr. T. Ahmed

ECON 422: Macroeconomics Analysis (3 credits)
Prerequisite: ECON 202
New-Keynesian, new-classical foundations and debate, Open Economy, Mundell-Fleming Model rational exceptions, Economic fluctuations and its sources in open economy, Fiscal-Monetary policy and economic stability, Catastrophe theory, random walk, real business cycle theory, dynamic consumption, investment, government debt and Richardian equivalence

Section A  Monday to Friday 09:45-11:15  E-214  Z. Iqbal
EDUCATION

EDUC 110: Foundations of Education  (3 credits)
Perspectives on economic, cultural, political, ideological, philosophical, aesthetic and psychological foundations of education, history of education in Pakistan.

Section A  Monday to Friday 08:00-09:30  N-215  M. A. Arshad
Section B  Monday to Friday 09:45-11:15  N-215  A. Rashid

EDUC 120: Educational Psychology  (3 credits)
Principles of Psychology as applied to the educational process, characteristics of the individual learner, the teacher, the classroom, methods and other relevant factors in the learning process, various stages of growth and development, brief introduction to psychological measurements and creativity in children.

Section A  Monday to Friday 11:30-01:00  N-215  A. Rashid
Section B  Monday to Friday 11:30-01:00  N-214  M. A. Arshad

EDUC 210: Education Policies of Pakistan  (3 credits)
Prerequisites: EDUC 110
Various education polices of Pakistan, analyses of the successes and failures of each with identification of probable causes, analysis of policies at the preschool, elementary, secondary, higher education and teacher education level.

Section A  Monday to Friday 11:30-01:00  N-217  Dr. C. J. Dubash

EDUC 320: Introduction to Research Methods in Education  (3 credits)
Prerequisites: EDUC 110, STAT 100, STAT 101 or STAT 102
Concepts and methods in research as applied to education, quantitative and qualitative research, criteria and procedures for selecting a problem, research methodologies with application for real life.

Section A  Monday to Friday 09:45-11:15  N-217  Dr. C. J. Dubash

EDUC 373: Teaching Reading  (3 credits)
Prerequisite: EDUC 110
Methods of teaching reading, classroom management for teaching individuals and small groups, methods of assessment for determining reading levels and progress of students, flexible grouping and scheduling for a variety of school situations and age groups.

Section A  Monday to Friday 08:00-09:30  N-217  Dr. C. J. Dubash

EDUC 430: Student Teaching Experience  (12 credits)
Prerequisites: EDUC 110, EDUC 120, EDUC 300, EDUC 350
Co-requisite: EDUC 440
Open to Education Majors and Minors only
An extended field-based course with real-life experience in the classroom. All aspects of the teaching-learning process will be looked at from a practical perspective.

Section A  Monday to Thursday 01:00-03:00  N-217  Dr. C. J. Dubash
EDUC 440: Seniors Seminar in Education (3 credits)
Prerequisite: EDUC 110
Co-requisite: EDUC 440
Open to Education Majors and Minors only
Discussion-based course for education majors who are completing their students-teaching experience. Discussion to be based on current trends in education and questions arising from their teaching experience. Current trends in education and questions and concerns arising from students-teaching experiences.

Section A  Monday to Thursday 03:00-04:00  N-217  Dr. C. J. Dubash
ENGLISH

ENGL 101: Writing and Grammar (3 credits)
Teaching of English language through integrated skills (reading, writing, listening, speaking), training students to write coherent paragraphs by practicing short narrative, descriptive, expository and argumentative, essay writing.

Section A  Monday to Friday 08:00-09:30  E-101  L. Masih
Section B  Monday to Friday 09:45-11:15  E-101  L. Masih
Section C  Monday to Friday 11:30-01:00  E-101  R. John

ENGL 102: Communication Skills (3 credits)
Develops practical communication skills through reading, writing, listening and speaking in real-life situations. One of the major objectives of this course is stimulate student to think about what, why and how they communicate. Emphasis is on verbal and non-verbal messages, identifying the main ideas of conversations, lectures and other spoken texts, deriving the meaning of new words from the context, note-taking skills for participating successfully in social conversation and academic discussions, interactive and effective listening, negotiation for meaning giving effective presentations, conducting seminars, chairing and participating in meetings, and writing emails, letters memos, CVs job applications and reports.

Section A  Monday to Friday 08:00-09:30  N-209  A. Waseem
Section B  Monday to Friday 09:45-11:15  N-209  A. Pervaiz

ENGL 103: Advanced Writing Skills (3 credits)
Prerequisite: ENGL 101
Proficiency in the skill of academic writing through research, development of a well-argued and well-documented academic paper with clear thesis statement, Critical thinking, argumentation and synthesis of information, using citation and bibliography.

Section A  Monday to Friday 11:30-01:00  N-209  A. Bushra
Section B  Monday to Friday 08:00-09:30  E-331  A. Pervaiz
Section C  Monday to Friday 09:45-11:15  E-331  A. Alphonce
Section D  Monday to Friday 11:30-01:00  E-331  A. Alphonce
Section E  Monday to Friday 08:00-09:30  E-332  Dr. K. Ud Din

ENGL 104: History of Literature (3 credits)
Overview of various ages and movements, form Medieval to contemporary that have shaped Literature in English across the globe. Special attention will be given to definitions of literary periods, the emergence and transformations of cannons, and the role of culture, society, and institutions in the interpretation of texts.

Section A  Monday to Friday 09:45-11:15  E-332  F. Zaheer
ENGL 201: Introduction to English Literature  (3 credits)
this course is a prerequisite for all of the core course / requirements of English major and
minor. Basic questions regarding the nature and functions of English literature that is now
described as “Literatures” in English. Traces, in the simplest possible way, the significant
elements and components of English literature and its various genres as they develop
systemically along its history, and also explores the practical and critical aspects that
address its abstract aesthetic.

Section A  Monday to Friday 11:30-01:00  E-332  Dr. K. Ud Din

ENGL 303: Introduction to Linguistics  (3 credits)
Acquaints students with four main aspects of the study of language: phonetics and
phonology, morphology, syntax, semantics, pragmatics, considers how social practices
shape and are shaped by language use (sociolinguistics), how children acquire language
(first language acquisition) and how we learn second languages (second language
acquisition / learning).

Section A  Monday to Friday 09:45-11:15  N-213  A. Waseem

ENGL 305: Teaching English as a Second Language  (3 credits)
Focuses on the theories of language acquisition, the relationship between first and second
language acquisition, teaching methodologies, theoretical links between teaching and
learning an introduction to current theories (post-methodology) and the practical
consideration of the profession and necessities of classroom work. Offers academic and
practical preparation to students who intend to pursue a career as ESL teachers.

Section A  Monday to Friday 08:00-09:30  E-121  J. J. Austin

ENGL 307: Drama I  (3 credits)
Introduces critical awareness of drama as a genre and a tradition with focus on its mutation
from the Classical to Elizabethan age onwards. Reading include classical models that are
followed to comprehends a play as a well-written play.

Section A  Monday to Friday 11:30-01:00  E-229  W. Azeem

ENGL 403: Contemporary Literary Criticism  (3 credits)
With classical literary critical approaches serving as a backdrop, this course offers the latest
trends in literary criticism and theory to trace influence and interaction of contemporary
Literary criticism within the diverse range of literary genres.

Section A  Monday to Friday 08:00-09:30  E-324  Dr. N. Langah

ENGL 404: English Poetry II  (3 credits)
Focuses on post-World War II poetry from various poetic traditions and emphasizes texts by
contemporary world poets.

Section A  Monday to Friday 11:30-01:00  E-324  Dr. N. Langah
GEOGRAPHY

GEOG 101: Fundamentals of Geography (3 credits)
Geography as a discipline, its thematic domains and fundamental concepts.

Section A  Monday to Friday 09:45-11:15  E-324  Z. Jameel

GEOG 133: Geographical Profile of Pakistan (3 credits)
Features of physical environment, resources, culture, communications and trade of Pakistan, problems confronted by Pakistan relating to cross cultural relationships, socio-economic viability, environmental conservation, resources sustainability and development.

Section A  Monday to Friday 08:00-09:30  E-227  S. A. Umar

GEOG 222: Globalization-An Introduction (3 credits)
Evolution and dynamics of globalization and its impact on spatiotemporal patterns of human culture

Section A  Monday to Friday 09:45-11:15  E-227  S. A. Umar

GEOG 270: Maps and their Interpretation (3 credits)
Note: Core Course for Minor in Geography
Different types of maps and their applications.

Section A  Monday to Friday 09:45-11:15  A-002  K. Shafique

GEOG 312: Meteorology and Climatology (3 credits)
Prerequisite: GEOG 210 or GEOG 311
Elements and forces producing lower atmosphere phenomena, the dynamics of heat flows, air movements, pressure changes, mass density, volume relationships and vaporization, release of moisture as applied to the changing state of the atmosphere and production of disturbances and storms, evolution of climatic systems, their spatial and temporal transformations and impact.

Section A  Monday to Friday 08:00-09:30  A-002  Z. Jameel

GEOG 313: Geodynamics and Geomorphology (3 credits)
Prerequisite: GEOG 101 or GEOG 210
Geostructuring, isostatic balancing, geotectonic and modulation, processes, agencies and cycles of landscape sculpturing and evolution including their temporal and spatial variations.

Section A  Monday to Friday 11:30-01:00  A-002  K. Shafique
HEALTH AND PHYSICAL EDUCATION

HPED 104: Summing for Beginners (Only for Boys) (1 credit)
Introduction to the basic skills in Swimming especially for the students who have little or no experience in this sport. The Student will learn the competition rules of Freestyle as well as attain proficiency in it. They will also appreciate the importance of life-long fitness to health.

Section A  Tuesday, Thursday 09:45-11:15  Swimming Pool  B. Kamil

HPED 105: Volleyball (Only for Boys) (1 credit)
The game of volleyball is a combination of passing, blocking and smashing; and requires strength, endurance, and agility. It’s a team game.

Section A  Tuesday, Thursday 11:30-01:00  Lucas Centre  S. Nazir

HPED 108: Table Tennis (Only for Girls) (1 credit)
Techniques to play table tennis for recreation and competition.

Section A  Tuesday, Thursday 09:45-11:15  Lucas Center  H. Atta
PKST 101: Pakistan Studies (Compulsory)  (3 credits)
The idea of Pakistan: history, geography, economy, politics and society of Pakistan through an identification of major themes, personalities, and events which have affected and continue to have an impact on the development of the country.

Section A  Monday to Friday 08:00-09:30  S-212  K. Jawad
Section B  Monday to Friday 09:45-11:15  S-212  K. Jawad
Section C  Monday to Friday 11:30-01:00  S-212  K. Jawad
MASS COMMUNICATION

MCOM 100: Fundamentals of Speech (3 credits)
Basic principles and practices of good vocal production and oral communication. texts, verse and prose in terms of vocal delivery. basic components of communication through analysis and practice in a variety of oral presentations. English speaking skills.

Section A  Monday to Friday 08:00-09:30  E-230  N. Sahar
Section B  Monday to Friday 09:45-11:15  E-230  N. Sahar
Section C  Monday to Friday 11:30-01:00  E-230  N. Sahar
Section D  Monday to Friday 08:00-09:30  E-228  R. Hasan
Section E  Monday to Friday 09:45-11:15  E-228  R. Hasan

MCOM 101: Introduction to Journalism (3 credits)
Introduction to print electronic and online journalism, types of journalism, news organization, basics of reporting and editing, contents of newspaper, television and radio.

Section A  Monday to Friday 08:00-09:30  E-104  A. Mubeen
Section B  Monday to Friday 09:45-11:15  E-104  A. Mubeen

MCOM 103: Introduction of PR & Advertising (3 credits)
Advertising and its role in the society, consumer culture, advertising and mass media marketing, public relations Selling and sales management. Process and tools of PR.

Section A  Monday to Friday 11:30-01:00  E-228  R. Hasan

MCOM 201: News Reporting (3 credits)
Prerequisite: MCOM 101
Mechanics, elements, value and structure of stories for print and electronic media; news sources for print and electronic media; Qualifications and functions of a reporter; Basics of camera and microphone reporting; Interpretative and investigative reporting, Reporting beats and interview techniques.

Section A  Monday to Friday 11:30-01:00  E-104  A. Mubeen

MCOM 301: Press Laws and Ethics (3 credits)
Prerequisite: MCOM 201
Evolution of press laws with special reference to the Sub-continent and Pakistan. A critical analysis of the current press and publication regulations; PEMRA laws pertaining to the electronic media in Pakistan; Freedom of expression; Defamation laws; Contempt of Courts; Contemporary trends in copyright law and the concept of intellectual property rights; Code of ethics for journalists from Western and Islamic Perspectives.

Section A  Monday to Friday 08:00-09:30  E-105  S. Mushtaq
MCOM 306: Research Methodology  (3 credits)
Prerequisite: MCOM 301, Only for junior students majoring in Mass Communications
Understanding of research methodology, concepts of research, kinds of research, elements of research design, technique to prepare a research proposal.

Section A  Monday to Friday 11:30-01:00  E-103  A. Soomro

MCOM 310: Mass Communication Studies  (3 credits)
Prerequisite: MCOM 301
Definitions, types, elements and models of communication and mass communication, features and functions of mass communication, media literacy, public opinion and propaganda, two-step flow of communication, barriers in communication, essentials of effective communication, gate-keeping and information control, the role of the opinion leader, current media trends, mass media and culture, mass media and society, mass media effects debates.

Section A  Monday to Friday 08:00-09:30  E-103  A. Soomro
Section B  Monday to Friday 09:45-11:15  E-103  A. Soomro

MCOM 402: Television: A Theoretical Introduction  (3 credits)
Prerequisite: MCOM 301
Set-up and working of news, duties of a news producer, sources of TV news, TV news film, basics of news film shooting and editing, drafting of TV news, compilation of bulletins, preparation of network bulletins, students will submit 5 news reports and two interviews of ten minutes duration each on CDs / DVDs.

Section A  Monday to Friday 09:45-11:15  E-105  S. Mushtaq

MCOM 407: Internship  (3 credits)
Only for MCOM Students (Seniors and Juniors Year
Prerequisite for internship CGPA 2.75
An internship will allow students to experience first-hand functioning of media organizations; sub-editing techniques, reporting techniques of different beats such as parliament, sports, commerce, social services and courts, etc.

Section A  Monday to Friday 11:30-01:00  E-105  Dr. H. Mian
MATHEMATICS

MATH 100: Quantitative Skills  (3 credits)
Basic algebra and number theory, rounding, estimating and scientific notation, algebraic
expressions, fractions, factoring, solving equation, two equations with two unknowns and
their applications to daily life problems, quadratic equations and their applications,
percentage problems (profit, loss, commission, zakat deduction, markup, margin, stock
exchange index) ratio and proportion, work problems, distance problems (time, distance,
speed, velocity) number sequence, basic geometry, mean, median, and mode, introduction
to probability.

Section A  Monday to Friday 09:45-11:15  S-412  F. Jamil
Section B  Monday to Friday 11:30-01:00  S-412  F. Jamil

MATH 101: Pre-Calculus & Trigonometry  (3 credits)
Fundamental, solution of equations and inequalities, lines, functions, linear and quadratic
functions, polynomial and rational functions, operations on functions, inverse functions,
synthetic division, remainder and factor theorem, partial fractions, exponential, logarithmic
and trigonometric functions trigonometric identities, solution of right and oblique triangles.

Section A  Monday to Friday 08:00-09:30  S-413  M. Asghar
Section B  Monday to Friday 09:45-11:15  S-413  M. Asghar

MATH 102: Calculus-I  (3 credits)
Prerequisite: MATH 101 or A-Level Mathematics or Intermediate Mathematics
Functions, graphs of functions, Translation, Stretching and compressing graphs, limit,
continuity and differentiability, differentiation and its basic rules, indeterminate forms,
L’Hopital’s rule, integration and its techniques, introduction to definite integral.

Section A  Monday to Friday 08:00-09:30  S-412  K. Azhar

MATH 312: Integral Equations  (3 credits)
Prerequisite: MATH 202
Introduction to integral equations, linear and non-linear integral equations, Volterra and
Fredholm integral equations, conversion of ordinary differential equations to integral
equations, integral equations with symmetric and separable kernels, method of successive
approximation, integral transform method.

Section A  Monday to Friday 11:30-01:00  S-413  K. Azhar
PHILOSOPHY

PHIL 101: Introduction to Philosophy (3 credits)
This course brings to the student a selection of the problems historically identified as philosophical along with the methods philosophers have used to solve these problems. Examples would be justice and moral order, evaluation and justification of belief human value and dignity. The emphasis is on identifying the problems that have bothered critical thinkers, followed by selective philosophical solutions and their authors.

Section A    Monday to Friday 11:30-01:00    E-121    Dr. G. Irfan
# PHYSICS

**PHYS 100: Introduction to Physics**

(4 credits)

Does not fulfill requirements of General Education for students who have studied physics at FSc, A-levels or equivalent

Scope of Physics, Kinematics and bodies in motion; communication, basic electricity medical physics and elements of astrophysics; laboratory: familiarization with measuring instruments and related experimentation.

**Section A**  
Monday to Friday 08:00-09:30  
Lab: Thursday 01:15-02:45  
S-007  
S. I. Hussain

**Section B**  
Monday to Friday 09:45-11:15  
Lab: Tuesday 01:15-02:45  
S-007  
Dr. S. Aslam

**Section C**  
Monday to Friday 11:30-01:00  
Lab: Monday 01:15-02:45  
S-007  
Dr. S. Aslam

**Section D**  
Monday to Friday 09:45-11:15  
Lab: Wednesday 01:15-02:45  
S-007  
S. I. Hussain

**PHYS 103: Mechanics**

(4 credits)

Prerequisite: PHYS 100 or F.Sc. or A. Level Physics or equivalent

Study of physical phenomena in mathematical terms; Statics and dynamics of particles and rigid bodies; oscillatory and rotary motion; gravitation and fluid mechanics; Laboratory.

**Section A**  
Monday to Friday 08:00-09:30  
Lab: Tuesday 01:15-02:45  
S-109  
D. Yousaf

**Section B**  
Monday to Friday 09:45-11:15  
Lab: Wednesday 01:15-02:45  
S-109  
Dr. M. Shehzad

**Section C**  
Monday to Friday 11:30-01:00  
Lab: Monday 09:45-11:15  
S-109  
M. Nawaz

**Section D**  
Monday to Friday 11:30-01:00  
Lab: Thursday 01:15-02:45  
S-016  
Dr. M. Shehzad

**PHYS 498: Internship**

(6 Credits)

Prerequisite: Physics majors with 90 completed credit hours with CGPA 2.50 or above  
(Instructor and HoD’s approval required)

Students will have to work in a well known industry/ organization or University/Institute for 6 to 8 weeks during summer semester, and will observe the timings as prescribed by the host organization. Director Career Planning will act as a liaison officer between the department and the industry/ organization University/Institute. The student will have a supervisor from the department as well as from the host organization. At the end of the completion of the training students will submit a written report to both the supervisors and will be evaluated by a departmental committee.

**Section A**  
Monday to Friday  
TBD  
Dr. S. Aslam

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POLITICAL SCIENCE

PLSC 101: Introduction to Political Science (3 credits)
Areas covered in political science including the nature of political science, the nature and forms of the state, structure of government, political dynamics, and the development of an appropriate political science vocabulary.

Section A  Monday to Friday 08:00-09:30  S-112  Dr. M. Younis

PLSC 102: Pakistan Government-National (3 credits)
A history of the freedom movement and study of the main institution of the national government and what makes the Pakistan government unique.

Section A  Monday to Friday 09:45-11:15  S-112  Dr. Younis

PLSC 103: Pakistan Government-Provincial / Local (3 credits)
Government at the provincial and local level with an examination of the basic institutional arrangements of the provincial government, provincial elections, political party organization, state public policy matters and a detailed exploration of the operation of government at these levels.

Section A  Monday to Friday 11:30-01:00  S-112  Dr. Younis
PSYCHOLOGY

PSYC 100: Introduction to Psychology  (3 credits)
Historical background and subfields of Psychology, research methods, biological basis of
behavior and psychological processes such as sensation, attention, perception, learning,
memory, motivation, emotions, intelligence, thinking and personality.

Section A  Monday to Friday 08:00-09:30  S-111  S. Samuel
Section B  Monday to Friday 11:30-01:00  S-115  A. Saleem

PSYC 340: Abnormal Psychology  (3 credits)
Prerequisite: PSYC 240
Nature and concepts of abnormality, historical perspective with special emphasis on Pakistan, psychoanalytic, medical, behavioristic; humanistic, and cognitive behavioral
models of abnormal behavior; psychological disorders; anti-psychiatry movement; overview
of major psychotherapeutic techniques; prevention of mental sickness.

Section A  Monday to Friday 11:30-01:00  S-111  S. Samuel

PSYC 375: Psychology of Gender  (3 credits)
Prerequisite: PSYC 150
Gender stereotypes, the role of biological, cognitive, social and cultural factors in creating
and maintaining gender differences, social roles, attitudes and achievement in males and
females, views of women in early psychology and survey of current gender based scientific
research and theory.

Section A  Monday to Friday 09:45-11:15  S-115  A. Saleem

PSYC 470: Internship  (3 credits)
Prerequisite: PSYC 340, minimum CGPA of 2.75
The course is intended to serve as a bridge between university and career. Internships
through the psychology department are intended to help students to achieve valuable
training and work experiences, and to provide a meaningful link between formal course work
and applied professional work. The culmination and tangible product of this internship will be
portfolio containing evidence of what students have done and learned during this course.

Section A  Monday to Friday 09:45-11:15  S-111  S. Samuel
RELIGIOUS STUDIES

ISLM 101: Islamic Education (3 credits)
This course is intended to provide an introductory understanding of Islam. Students learn much about the Islamic way of life in this subject as they study about logical and rational vindication of their fundamental beliefs. The course is quite helpful in improving character traits, personality strengths and social manners in the light of Islamic teachings. By taking this course, students improve their inner conviction about their faith and are likely to become better Muslims. Basic emphasis is on ethical development and character building of the students.

Section A  Monday to Friday 09:45-11:15  E-126  Dr. A. Ghani

ISLM 103: Islamic Ideology (3 credits)
Prerequisite: ISLM101
Contents include: definition and role of ideology; Islam as an ideology for all; Chief characteristics of Islamic ideology; Religious aspect of Islamic ideology; Islamic political thought; Islamic economic system; social system of Islam; Islamic legal teachings; and Islam and modern Issues. The course facilitates a practice of higher order thinking skills in learners. It will provide ample opportunity to the participants to discus Islamic ideology by different aspects and explore the scope of its practical implication to real life.

Section A  Monday to Friday 11:30-01:00  E-126  Dr. A. Ghani

ISLM 104: Arabic Communications Skills (3 credits)
Prerequisite: ISLM101
This subject aims to provide an introductory understanding of Arabic grammar and composition. It deals with the basic structure of Arabic Language; everybody conversation vocabulary enhancement, translation and composition.

Section A  Monday to Friday 08:00-09:30  E-122  A. Ur Rehman

ISLM 302: Islamic Jurisprudence (3 credits)
Prerequisite: ISLM101
This subject introduces students to the definition of law sources of Islamic Haria, (qur’an, Sunnah, Ijma, Qiyas, Ijtehaad), types of Islamic law, Islamic injunctions and family law. The course provides fundamental study of Islamic law and jurisprudence with its historical development.

Section A  Monday to Friday 09:45-11:15  E-229  Dr. F. Aziz
ISLM 304: Seerat-Un-Nabi  
(3 credits)
Prerequisite: ISLM101
This course aims to provide an understanding of how the development biographical studies of the Prophet Muhammad (PBUH) influenced Islamic thought throughout Islamic history. The course will examine the Prophet as an example of being followed, the difference between the prophet’s tradition (Hadith) and his biography (Seerah), the Prophet’s life before his mission; The early period of Makkah where he faced opposition, Migration to Madinah; Establishment of the Islamic state in Madinah, Treaties and Relations with non-Muslims, Ghazaat and conquest of Makkah and the Last sermon and its impact on modern human life.

Section A  
Monday to Friday 09:45-11:15  
E-122  
A. Ur Rehman

ISLM 402: Islam and the West  
(3 credits)
Prerequisite: ISLM101 or CRST 152
Islam is a major factor in global affairs and the study of Islam is an increasingly valuable part of academic and non-academic studies. The majority of Western leading scholars of religion have been studying Islam for centuries. Many western universities are offering degree programs and courses on Islamic Studies. They have addressed the topics such as the Quran, the Hadith, Islamic law, Biography of the Holy Prophet, Sufism, Women in Islam etc. Despite this, very little attention has been given to the basic question how Islam should be taught and understood. Through this course western understanding of Islam is evaluated.

Section A  
Monday to Friday 11:30-01:00  
E-122  
Dr. F. Aziz

ISLM 499: Research Project  
(3 credits)
Prerequisite: 33 credits in Religious Studies
All students majoring in Religious Studies will be asked to write a research assignment of 50-100 pages on a topic chosen in conjunction with the department faculty. A student may take an extra course of upper division in lieu of research project with the approval of the Head of Department.

Section A  
Monday to Friday TBD  
TBD  
Dr. B. Watemore

CHRISTIAN STUDIES

CRST 151: Basic Christian Doctrine  
(3 credits)
This course serves as an introduction to the foundational Christian beliefs such as the nature of God, the person and work of Christ, the purpose of the church, the meaning of Christian life and growth, and the nature of God’s Word as revealed in the Old and New Testaments

Section A  
Monday to Friday 09:45-11:15  
N-208  
K. Pervaiz
SOCL 100: Introduction to Sociology (3 credits)
Presents fundamental concepts of sociology. Helps students to observe and understand the actions, beliefs, and interactions of people in their own and other societies and to think critically about themselves in relation to social structures in their own and other societies at the individual, group and societal levels. Analyzes current social issues in Pakistan and other countries in terms of sociological concepts. Assignments focus on analyzing and interpreting social issues in societies around the world in sociological terms with practical assignments that reinforce classroom learning.

Section A  Monday to Friday 09:45-11:15  N214  S. Jabeen

SOCL 201: Sociological Research Methods (3 credits)
Prerequisites: SOCL 100 or another introductory course in the Social Sciences, and Statistics 103. Presents methodological approaches in social science research, the ethics of social research, and the comparative advantages and limitations of a variety of research orientations, strategies and techniques including experiments, field observations, interviewing, unobtrusive research and surveys. These will be learned through lectures, discussions and reviews of examples, basic method and technique of social research by doing social research projects, skills in observation, interviewing, hypothesis building, theory building, questionnaire construction, computer data manipulation, data interpretation, research report writing, and client support.

Section A  Monday to Friday 09:45-11:15  E-121  Dr. C. Fair

SOCL 498: Internship (3 credits)
Prerequisite: Sociology majors and minors who have taken SOCL 100, SOCL 201 and SOCL 301 and have a minimum CGPA of 2.75. An internship in an organization which utilizes the skills learnt in the study of sociology.

Section A  Monday to Friday TBD  TBD  S. Rashid
STATISTICS

STAT 100: Basic Statistics (3 credits)
Sample and population, variables, collection and presentation of data, measures of central tendency and dispersion for ungrouped data, Index numbers, correlation and free hand line of trend.

Section: A  Monday to Friday 09:45-11:15
Section: B  Monday to Friday 08:00-09:30

STAT 101: Statistical methods (3 credits)
Nature and scope of statistics, scales of measurements, measure of central tendency and dispersion for grouped data, moments, skewness and kurtosis, fundamental rules of counting, Basic probability, moments in probability context.

Section: A  Monday to Friday 09:45-11:15

STAT 102 / MATH 105: Probability and Probability Distributions (3 credits)
Basic set theory. Different approaches and laws of probability. Conditional probability Bayes' rule. Random variables, some standard discrete and continuous probability distributions

Section: A  Monday to Friday 08:00-09:30
Section: B  Monday to Friday 11:30-01:00

STAT 103: Quantitative methods in social science (3 credits)
Application of Statistical methods in Social Sciences. Data analysis using SPSS.

Section: A  Monday to Friday 11:30-01:00
URDU

URDU 101: Communicative Urdu (3 credits)
Communication and its different means, brief introduction to Urdu language, some fundamentals of Urdu grammar, functional Urdu, creative writing and journalistic Urdu.

Section A  Monday to Friday 11:30-01:00  E-328  A. Anwar
Section B  Monday to Friday 08:00-09:30  E-328  Dr. A. A. Virk

URDU 201: A brief History of Urdu language and Literature (3 credits)
Introduction to Urdu language and theories regarding its origin; phases and trends in Urdu literature up till the 20th Century: Urdu in Delhi and Lucknow; evolution of Urdu Prose.

Section A  Monday to Friday 09:45-11:15  E-323  Dr. A. A. Virk

URDU 204: Urdu Grammar and Literary Terms (3 credits)
Ilm-ul-beyan, Ilm-ul-badih, Adabi Istlahat.

Section A  Monday to Friday 11:30-01:00  E-323  A. Shumar

URDU 208: Script Writing in Urdu (3 credits)
Documentary writing: Program scripts, Journalistic scripts, Business scripts, Drama and Film scripts.

Section A  Monday to Friday 09:45-11:15  E-330  N. Khokhar

URDU 301: Modern Urdu Poetry (3 credits)
Modernity and Modernism, Ghazal (Hasrat Mohani, Faiz Ahmad Faiz, Nasir Kazmi), Nazam (Majeed Amjad, Faiz Ahmad Faiz), Lyrics (Hafeez Jalandhry), An analysis of Urdu poetry in the 20th century in a nutshell.

Section A  Monday to Friday 09:45-11:15  E-328  A. Anwar

URDU 302: Criticism (3 credits)
Basic principles and definition of criticism, Oriental criticism, Western Criticism, Practical criticism.

Section A  Monday to Friday 08:00-09:30  E-231  A. Shumar

URDU 305: Autobiographical Literature in Urdu (3 credits)
Evolution of autobiographical literature in Urdu, autobiographers: Abdul Majeed Salik, Rashid Ahmed Siddiqui, Ihsan Danish and Qudrat Ullah shahab.

Section A  Monday to Friday 09:45-11:15  E-333  Dr. G. S. Qasim
URDU 306: Travelogues in Urdu  (3 credits)
Evolution of travelogues in Urdu, selected extracts from Mahmood Nizaami, Begum Akhtar Riaz-ud-Din, Ibn-e-Insha and Mustansar Hussain Tarrar

Section A  Monday to Friday 08:00-09:30  E-333  Dr. G. S. Qasim

URDU 402: A study of Urdu Drama  (3 credits)
Art and evolution of Urdu drama, selected extracts from Anarkali, Mirza Ghalib Bandar Road Per and Man Chalay Ka Soda.

Section A  Monday to Friday 11:30-01:00  E-330  N. Khokhar