

UNIVERSITY OF AGRICULTURE, FAISALABAD

Department of Mathematics and Statistics

Revised Scheme of Studies for BS Statistics 2023

| HEC COURSE CATEGORY | UAF SELECTION FOR BS Statistics | | |
|---------------------|---------------------------------|--|-----------|
| | Course Code | Course Title | Credits |
| GENERAL- I | FA-310 | INTRODUCCTION TO ARTS AND HUMANITIES | 2(2-0) |
| GENERAL- II | SSH-303 | IDEOLOGY AND CONSTITUTION OF PAKISTAN | 2(2-0) |
| GENERAL- III | CS-305 | APPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES | 3(2-1) |
| GENERAL- IV | MATH-408 | QUANTITATIVE REASONING-I | 3(3-0) |
| GENERAL- V | ENG-313 | FUNCTIONAL ENGLISH | 3(3-0) |
| GENERAL- VI | IS-401/SSH-306 | ISLAMIC STUDIES/ ETHICS | 2(2-0) |
| GENERAL- VII | STAT-408 | QUANTITATIVE REASONING-I I | 3(3-0) |
| GENERAL- VIII | ENG-314 | EXPOSITORY WRITING | 3(3-0) |
| GENERAL- IX | EDU-306 | CIVICS AND COMMUNITY ENGAGEMENT | 2(2-0) |
| GENERAL- X | PY-307 | FUNDAMETALS OF NATURAL SCIENCES | 3(2-1) |
| GENERAL- XI | BMS-402 | ENTREPRENEURSHIP | 2(2-0) |
| GENERAL- XII | SOC-311 | INTRODUCTION TO SOCIOLOGY | 2(2-0) |
| NON-CREDIT COURSE | IS-402/SSH-403 | ترجمة القرآن/INTERFAITH HARMONY | No-Credit |
| NON-CREDIT COURSE | IS-403/SSH-404 | روحانیت/ MORAL PHILOSOPHY | No-Credit |
| | | Total Credit Hours | 30 |
| ALLIED-I | MATH-303 | CALCULUS-I | 4(4-0) |
| ALLIED-II | MATH-404 | LINEAR ALGEBRA | 3(3-0) |
| ALLIED-III | MATH-305 | CALCULUS-II | 3(3-0) |
| ALLIED-IV | MATH-503 | ORDINARY DIFFERENTIAL EQUATIONS | 3(3-0) |
| ALLIED-V | MATH-601 | NUMERICAL ANALYSIS | 3(3-0) |
| ALLIED-VI | MATH-405 | DISCRETE MATHEMATICS | 3(3-0) |
| ALLIED-VII | MATH-513 | OPERATIONS RESEARCH | 3(3-0) |
| ALLIED-VIII | MATH-514 | MATRICES FOR STATISTICS | 3(3-0) |
| ALLIED-IX | CS-308 | PROGRAMMING FUNDAMENTALS | 3(2-1) |
| ALLIED-X | CS-506 | BIG DATA ANALYTICS | 3(2-1) |
| | | Total Credit Hours | 31 |
| MAJOR-I | STAT-301 | INTRODUCTORY STATISTICS | 4(4-0) |
| MAJOR-II | STAT-302 | INTRODUCTION TO PROBABILITY THEORY | 4(4-0) |
| MAJOR-III | STAT-401 | BASIC STATISTICAL INFERENCE | 4(4-0) |
| MAJOR-IV | STAT-403 | APPLIED STATISTICS | 4(4-0) |
| MAJOR-V | STAT-404 | INTRODUCTION TO REGRESSION AND ANALYSIS OF VARIANCE | 4(3-1) |
| MAJOR-VI | STAT-405 | INTRODUCTION TO STATISTICAL SOFTWARE | 4(0-4) |

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| MAJOR-VII | STAT-502 | STATISTICAL METHODS | 3(3-0) |
| MAJOR-VIII | STAT-503 | PROBABILITY AND DISTRIBUTION THEORY-II | 3(3-0) |
| MAJOR-IX | STAT-505 | SAMPLE SURVEY-I | 3(3-0) |
| MAJOR-X | STAT-507 | DESIGN AND ANALYSIS OF EXPERIMENTS-I | 3(3-0) |
| MAJOR-XI | STAT-512 | SURVEY AND RESEARCH METHODOLOGY | 3(2-1) |
| MAJOR-XII | STAT-504 | PROBABILITY AND DISTRIBUTION THEORY-II | 3(3-0) |
| MAJOR-XIII | STAT-506 | SAMPLE SURVEY-II | 3(3-0) |
| MAJOR-XIV | STAT-508 | DESIGN AND ANALYSIS OF EXPERIMENTS-II | 3(3-0) |
| MAJOR-XV | STAT-509 | OFFICIAL STATISTICS AND POPULATION STUDIES | 3(3-0) |
| MAJOR-XVI | STAT-510 | ECONOMETRICS-I | 3(3-0) |
| MAJOR-XVII | STAT-511 | LINEAR MODELS | 3(3-0) |
| MAJOR-XVIII | STAT-602 | STATISTICAL QUALITY CONTROL | 3(3-0) |
| MAJOR-XIX | STAT-603 | BAYESIAN STATISTICS | 3(3-0) |
| MAJOR-XX | STAT-604 | ECONOMETRICS-II | 3(3-0) |
| MAJOR-XXI | STAT-605 | MULTIVARIATEMETHODS | 4(4-0) |
| MAJOR-XXII | STAT-606 | ESTIMATION AND TESTING OF HYPOTHESIS | 4(4-0) |
| MAJOR-XXIII | STAT-620 | SEMINAR | 1(1-0) |
| | | Total Credit Hours | 75 |
| INTERNSHIP | STAT-621 | TECHNICAL REPORT/ INTERNSHIP | 3(0-3) |
| CAPSTONE PROJECT | STAT-622 | CAPSTONE PROJECT | 3(0-3) |
| | | Grand Total | 142 |

FIRST SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|--------------------|--|---------------------|
| STAT-301 | INTRODUCTORY STATISTICS | 4(4-0) |
| MATH-404 | LINEAR ALGEBRA | 3(3-0) |
| MATH-408 | QUANTITATIVE REASONING-I | 3(3-0) |
| ENG-313 | FUNCTIONAL ENGLISH | 3(3-0) |
| IS-401/SSH-306 | ISLAMIC STUDIES/ ETHICS | 2(2-0) |
| SOC-311 | INTRODUCTION TO SOCIALOGY | 2(2-0) |
| EDU-306 | CIVICS AND COMMUNITY ENGAGEMENT | 2(2-0) |
| TGM-301 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| | TOTAL CREDIT HOURS | 19 |

SECOND SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|--|---------------------|
| STAT-302 | INTRODUCTION TO PROBABILITY THEORY | 4(4-0) |
| MATH-303 | CALCULUS-I | 4(4-0) |
| STAT-408 | QUANTITATIVE REASONING-II | 3(3-0) |
| ENG-314 | EXPOSITORY WRITING | 3(3-0) |
| BMS-402 | ENTREPRENEURSHIP | 2(2-0) |
| SSH-303 | IDEOLOGY AND CONSTITUTION OF PAKISTAN | 2(2-0) |
| FA-310 | INTRODUCCTION TO ARTS AND HUMANITIES | 2(2-0) |
| TGM-302 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 20 |

THIRD SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|---|---------------------|
| STAT-401 | BASIC STATISTICAL INFERENCE | 4(4-0) |
| STAT-403 | APPLIED STATISTICS | 4(4-0) |
| PY-307 | FUNDAMENTAL OF NATURAL SCIENCES | 3(2-1) |
| MATH-305 | CALCULUS-II | 3(3-0) |
| MATH-601 | NUMERICAL ANALYSIS | 3(3-0) |
| CS-305 | APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES | 3(2-1) |
| IS-402/SSH-403 | ترجمة القرآن/INTERFAITH HARMONY | No-Credit |
| TGM-401 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 20 |

FOURTH SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|---|---------------------|
| STAT-404 | INTRODUCTION TO REGRESSION AND ANALYSIS OF VARIANCE | 4(3-1) |
| STAT-405 | INTRODUCTION TO STATISTICAL SOFTWARE | 4(0-4) |
| MATH-405 | DISCRETE MATHEMATICS | 3(3-0) |
| MATH-503 | ORDINARY DIFFERENTIAL EQUATIONS | 3(3-0) |
| MATH-513 | OPERATIONS RESEARCH | 3(3-0) |
| CS-308 | PROGRAMMING FUNDAMENTALS | 3(2-1) |
| IS-403/SSH-404 | روحانیت/ MORAL PHILOSOPHY | No-Credit |
| TGM-402 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 20 |

FIFTH SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|--|---------------------|
| STAT-502 | STATISTICAL METHODS | 3(3-0) |
| STAT-503 | PROBABILITY AND DISTRIBUTION THEORY-I | 3(3-0) |
| STAT-505 | SAMPLE SURVEY-I | 3(3-0) |
| STAT-507 | DESIGN AND ANALYSIS OF EXPERIMENTS-I | 3(3-0) |
| STAT-512 | SURVEY AND RESEARCH METHODOLOGY | 3(2-1) |
| MATH-514 | MATRICES FOR STATISTICS | 3(3-0) |
| TGM-501 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 18 |

SIXTH SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|--|---------------------|
| STAT-504 | PROBABILITY AND DISTRIBUTION THEORY-II | 3(3-0) |
| STAT-506 | SAMPLE SURVEY-II | 3(3-0) |
| STAT-508 | DESIGN AND ANALYSIS OF EXPERIMENTS-II | 3(3-0) |
| STAT-509 | OFFICIAL STATISTICS AND POPULATION STUDIES | 3(3-0) |
| STAT-510 | ECONOMETRICS-I | 3(3-0) |
| STAT-511 | LINEAR MODELS | 3(3-0) |
| TGM-502 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 18 |

SEVENTH SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|--|---------------------|
| STAT-602 | STATISTICAL QUALITY CONTROL | 3(3-0) |
| STAT-603 | BAYESIAN STATISTICS | 3(3-0) |
| STAT-604 | ECONOMETRICS-II | 3(3-0) |
| STAT-605 | MULTIVARIATE METHODS | 4(4-0) |
| STAT-606 | ESTIMATION AND TESTING OF HYPOTHESIS | 4(4-0) |
| CS-506 | BIG DATA ANALYTICS | 3(2-1) |
| TGM-601 | TUTORIAL GROUP MEETING FOR SOFT SKILLS | No-Credit |
| TOTAL CREDIT HOURS | | 20 |

EIGHTH SEMESTER

| COURSE CODE | COURSE TITLE | CREDIT HOURS |
|---------------------------|------------------------------|---------------------|
| STAT-620 | SEMINAR | 1(1-0) |
| STAT-621 | TECHNICAL REPORT/ INTERNSHIP | 3(0-3) |
| STAT-622 | CAPSTONE PROJECT | 3(0-3) |
| TOTAL CREDIT HOURS | | 07 |

Total Credit Hours for BS Statistics (4-Years):

| Sem. I | Sem. II | Sem. III | Sem. IV | Sem. V | Sem. VI | Sem. VII | Sem. VIII | Total |
|--------|---------|----------|---------|--------|---------|----------|-----------|--------------|
| 19 | 20 | 20 | 20 | 18 | 18 | 20 | 07 | 142 |