



Degree and Study Plan

College: Science
 Department: Statistics
 Cohort: 2018-2020
 Degree: Bachelor of Science
 Major: Statistics
 Specialization: -

Summary of Credits:

| | |
|--|-----------------|
| University Requirements (UR) | 6 |
| Foundation Program | NC ⁺ |
| Arabic | 2 |
| State and People | 2 |
| Oman & Islamic Civilization or Islamic Culture | 2 |
| University Electives (UE) | 6 |
| See List A | |
| College Requirements (CR) | 3 |
| See list B | |
| College Electives (CE) | 16 |
| See list C | |
| Departmental Requirements (DR) | 16 |
| See list D | |
| Departmental Electives (DE) | 9 |
| See list E | |
| Major Requirements (AR) | 39 |
| See list F | |
| Major Electives (AE) | 27 |
| See list G | |
| Specialization Requirements (SR) | |
| See list H | |
| Specialization Electives (SE) | |
| See list I | |
| Minor Requirements (IR) | |
| See list J | ++ |
| Minor Electives (IE) | |
| See list K | |
| TOTAL | 122 |

⁺ Not credited.

⁺⁺ Minor is optional: total credits to earn a Minor are 18, with no more than 8 credits counting towards the Major degree may count towards a Minor.

For reference contact Dr. : Moh'd Alodat

Ext. 1433

HoD: Dr. : Moh'd Alodat

Date: May 29, 2023

Dean's Office: Dr. Talal Al Hosni

Date: 26/6/2023

Admission and Registration:

Date:



**Department of Statistics Degree Plan for
Cohort 2018-2020**

| Categories | CR |
|--------------------------------|------------|
| University Requirements (UR) | 6 |
| University Electives (UE) | 6 |
| College Requirement (CR) | 3 |
| College Electives (CE) | 16 |
| Departmental Requirements (DR) | 16 |
| Departmental Electives (DE) | 9 |
| Major Requirements (AR) | 39 |
| Major Electives (AE) | 27 |
| TOTAL | 122 |

| Semester 1 Fall | Course Code | Course Title | Cr. | Pre-Requisite/Co-Requisite* | Cat. |
|----------------------------|--------------------|----------------------------|------------|---|-------------|
| | ARAB1060 | Arabic | 2 | | UR |
| | SOCY1005 | State and People | 2 | | UR |
| | LANC2058 | Communication in Science | 3 | FPEL0560 or FPEL0600 or FPEL0601 or FPEL0602 or FPEL0603 or FPEL0604 | CR |
| | MATH2107 | Calculus 1 | 4 | FPEL0560 or FPEL0600 or FPEL0601 or FPEL0602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) | CE |
| | STAT2101 | Introduction to Statistics | 4 | FPEL0560 or FPEL0600 or FPEL0601 or FPEL0602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) | CE |
| | Total | | 15 | | |

| Semester 2 Spring | HIST1010 or ISLAM1010 | Oman & Islamic Civilization or Islamic Culture | 2 | | UR |
|------------------------------|-----------------------|--|-----------|---|----|
| | COMP2101 | Introduction to Computer Science | 4 | FPEL0560 or FPEL0600 or FPEL0601 or FPEL0602 or FPEL0603 or FPEL0604 and (FPCS0101 or FPCS0102) | CE |
| | MATH2108 | Calculus II | 3 | MATH2107 | DR |
| | MATH2350 | Foundations of Mathematics | 3 | MATH2107 | DR |
| | STAT2102 | Introduction to Probability | 3 | STAT2101, MATH2108* | DR |
| | Total | | 15 | | |

| Semester 3 Fall | Course Code | Course Title | Cr. | Pre-Requisite/Co-Requisite* | Cat. |
|--------------------|--------------|---|-----------|---|------|
| | MATH2202 | Linear Algebra I | 3 | FPMT0105/0108/0109&FPEL 0601 /0602/0603 | DR |
| | COMP2202 | Fundamentals of Object Oriented Programming | 3 | COMP2101 | AR |
| | STAT3334 | Introduction to Inference | 3 | STAT2102 & LANC2058 | AR |
| | | College Elective | 4 | | CE |
| | | University Elective | 2 | | UE |
| | Total | | 15 | | |

| Semester 4 Spring | MATH3110 | Calculus III | 4 | MATH2108 & LANC2058 | DR |
|----------------------|--------------|--|-----------|-------------------------------|----|
| | STAT3335 | Introduction to Sampling | 3 | STAT2102 and LANC2058 | AR |
| | STAT3338 | Statistical Methods | 3 | STAT3334 & LANC2058 | AR |
| | STAT3336 | Computational Techniques in Statistics | 3 | STAT2102, COMP2202 & LANC2058 | AR |
| | | Major Elective | 3 | | AE |
| | Total | | 16 | | |

| Semester 5 Fall | STAT4432 | Regression Analysis | 3 | MATH2202, STAT3334 | AR |
|--------------------|--------------|--------------------------------------|-----------|--------------------|----|
| | STAT4433 | Design and Analysis of Experiments I | 3 | STAT3338 | AR |
| | | Departmental Elective | 3 | | DE |
| | | Major Elective | 3 | | AE |
| | | Major Elective | 3 | | AE |
| | Total | | 15 | | |

| Semester 6 Spring | STAT4434 | Non-Parametric Statistics | 3 | STAT3334 | AR |
|----------------------|--------------|---------------------------|-----------|----------|----|
| | | Departmental Elective | 3 | | DE |
| | | Major Elective | 3 | | AE |
| | | Major Elective | 3 | | AE |
| | | University Electives (2) | 4 | | UE |
| | Total | | 16 | | |

| Semester 7 Fall | STAT5521 | Categorical Data Analysis | 3 | STAT3338 | AR |
|--------------------|--------------|---------------------------|-----------|------------------------------|----|
| | STAT5537 | Multivariate Techniques | 3 | STAT3334, MATH2202, MATH3110 | AR |
| | STAT5501 | Project in Statistics I | 2 | STAT 4432, STAT 4433 | AR |
| | | Departmental Elective | 3 | | DE |
| | | Major Elective | 3 | | AE |
| | Total | | 14 | | |

| | Course Code | Course Title | Cr. | Pre-Requisite/Co-Requisite* | Cat. |
|----------------------|-------------|--------------------------|-----|-----------------------------|------|
| Semester 8 Spring | STAT5536 | Time Series Analysis | 3 | STAT 4432 | AR |
| | STAT5502 | Project in Statistics II | 4 | STAT 4432, STAT4433 | AR |
| | | Major Elective | 3 | | AE |
| | | Major Elective | 3 | | AE |
| | | Major Elective | 3 | | AE |
| | Total | | 16 | | |

Department of Statistics – Statistics Degree Plan: Cohort 2018-2020

UNIVERSITY REQUIREMENTS (UR) (6 CREDITS)

| Course code | Course Title | Cr | Prerequisites /Co-Requisite* |
|----------------------------|---|----|------------------------------|
| ARAB1060 | Arabic | 2 | |
| HIST1010 or ISLM1010 | Oman & Islamic Civilization or Islamic Culture | 2 | |
| SOCY1005 | State and People | 2 | |

LIST A: UNIVERSITY ELECTIVES (UE) (6 Credits)

See SQU Deanship of Admission and Registration website for the list of University Electives

<https://sis.squ.edu.om/sis/webreg/3s/electiveTimeTable.jsp>

LIST B: COLLEGE REQUIREMENTS (CR) (3 Credits)

| Course Code | Course Title | Credits | Pre-Requisite / Co-Req. * |
|-----------------------|--------------------------|---------|--|
| LANC2058 [†] | Communication in Science | 3 | FPEL0560 or FPEL0600 or FPEL0601 or FPEL0602 or FPEL0603 or FPEL0604 |

[†]LANC2058 is a pre-requisite for all 3000-level College of Science courses.

LIST C: COLLEGE ELECTIVES (CE) (16 Credits)

| Course Code | Course Title | Credits | Pre-Requisite / Co-Req. * |
|-----------------------|----------------------------------|---------|--|
| BIOL2101 | General Biology I | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 |
| CHEM2101 | General Chemistry I | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) |
| COMP2101 ⁺ | Introduction to Computer Science | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 and (FPCS0101/FPCS0102) |
| ERSC2101 | Introduction to Geology I | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 |

| | | | |
|-----------------------|----------------------------|---|---|
| MATH2107 ⁺ | Calculus I | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) |
| PHYS2101 | General Physics I | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) |
| STAT2101 ⁺ | Introduction to Statistics | 4 | FPEL0560 or FPEL0600 or FPEL601 or FPEL602 or FPEL0603 or FPEL0604 and (FPMT0105 or FPMT0108 or FPMT0109) |

⁺MATH2107 and STAT2101 are important pre-requisite courses for Statistics departmental requirements. ⁺⁺COMP2101 is a required course for Statistics degrees. Credits taken in excess of 16 can be counted as Major Electives (List G)

LIST D: DEPARTMENTAL REQUIREMENTS (DR) (16 Credits)

| Course Code | Course Title | Credits | Pre-Requisite / Co-req. * |
|-------------|-----------------------------|---------|---|
| MATH2108 | Calculus II | 3 | MATH2107 |
| MATH2202 | Linear Algebra I | 3 | FPEL0560 or FPEL0600 or FPEL0603 or FPEL0604 and FPMT0105 or FPMT0108 or FPMT0109 |
| MATH2350 | Foundations of Mathematics | 3 | MATH2107 |
| MATH3110 | Calculus III | 4 | MATH2108 & LANC2058 |
| STAT2102 | Introduction to Probability | 3 | STAT2101 MATH2108* |

LIST E: DEPARTMENTAL ELECTIVES (DE) (9 Credits)

| Course Code | Course Title | Credits | Pre-Requisite / Co-req. * |
|-------------|--|---------|--------------------------------|
| STAT3331 | Operations Research I | 3 | MATH2108 & STAT2101 & LANC2058 |
| STAT3337 | Introduction to Actuarial Science I | 3 | STAT2102 & LANC2058 |
| STAT4422 | Demographic and Health Care Statistics | 3 | STAT3334 |
| STAT4436 | Survey Design | 3 | STAT3335 |
| STAT4533 | Quality Assurance and Reliability | 3 | STAT2102 |
| STAT4534 | Simulation | 3 | STAT3336 |
| | Total | 9 | |

Credits taken in excess of 9 can be counted as Major Electives (List G)

LIST F: MAJOR REQUIREMENTS (AR) (39 Credits)

| Course Code | Course Title | Credits | Pre-Requisite / Co-req. * |
|-------------|---|---------|---------------------------|
| COMP2202 | Fundamentals of Object Oriented Programming | 3 | COMP2101 |
| STAT3334 | Introduction to Inference | 3 | STAT2102& LANC2058 |
| STAT3335 | Introduction to Sampling | 3 | STA2102& LANC2058 |

| | | | |
|--------------|--------------------------------------|-----------|-------------------------------|
| STAT3336 | Computational Techniques | 3 | STAT2102+ COMP2202 & LANC2058 |
| STAT3338 | Statistical Methods | 3 | STAT3334& LANC2058 |
| STAT4432 | Regression Analysis | 3 | MATH2202+ STAT3334 |
| STAT4433 | Design and Analysis of Experiments I | 3 | STAT3338 |
| STAT4434 | Non-parametric Statistics | 3 | STAT3334 |
| STAT5521 | Categorical Data Analysis | 3 | STAT3338 |
| STAT5536 | Time Series Analysis | 3 | STAT4432 |
| STAT5537 | Multivariate Techniques | 3 | MATH2202+ MATH3110+ STAT3334 |
| STAT5501 | Project in Statistics I | 2 | STAT 4432, STAT 4433 |
| STAT5502 | Project in Statistics II | 4 | STAT 4432, STAT 4433 |
| Total | | 39 | |

LIST G. MAJOR ELECTIVES (AR) (27 Credits)

“All College of Science courses not used for required courses (Lists A, B, C, D, E, F, G, H, I, J, and K) can be taken as major electives”.

Refer to the Major Electives page on the College Website:

<https://www.squ.edu.om/science/Academic-Programs/Undergraduate-Programs/Major-Electives>

MINORS AVAILABLE TO Statistics MAJORS

LISTS J and K: MINOR REQUIREMENTS and ELECTIVES (18 Credits)

Refer to the Minor list on the College Website to see the available minors and their requirements:

<https://www.squ.edu.om/science/Academic-Programs/Undergraduate-Programs>

* Students are required to complete 18 Credits in the minor courses to qualify for a minor.

* Courses counting towards an approved Minor may substitute courses listed as Major Electives (List G) but no more than 8 credits counting towards the Major degree (lists C, D, E, F) may count towards a Minor.

* Students should take a minor different than their major.

For reference contact: Dr. Moh'd AlOdat

Approved by Dean of Science:



Office of Admissions & Registration:

Confirmed:

Ext. 1433

Date: 26/6/2023

