# THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE

## *Department of Urban and Regional Planning*

## URP 308 – QUNTITATIVE TECHNIQUES

## COURSE PARTICULARS

**Course Code:** URP 308
**Course Title:** Quantitative Techniques
**No. of Units:** 3
**Course Duration:** Two hours of theory and one hour of tutorial per week for 15 weeks.
**Status:** Compulsory
**Course Email Address:** urp308@gmail.com
**Course Webpage:** http://www.urp.futa.edu.ng/courseschedule.php?coursecode=URP%20308
**Prerequisite:** NIL

## COURSE INSTRUCTORS

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 and

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## COURSE DESCRIPTION

This course exposes candidates to data editing, classification and analysis. It is to help students in the field of Urban and Regional Planning on how to handle planning related data. In addition, it is expected that at the end of the course candidates will be able to analyse data manually and through the use of computer software. Candidates will be exposed to both descriptive and inferential statistics. Topics to be covered include analytical techniques for analysing planning data; presentation of data; parametric and non-parametric statistical techniques; correlation and regression analysis; forecasting techniques; models in planning and use of computer application in data analysis, such as SPSS, EXCEL, STATISTCA and other packages.

## COURSE OBJECTIVES

The objectives of this course are to:
- introduce students to the use of quantitative techniques and computer software such as Excel, Statistical SPSS for solving planning related projects; and
- provide students with opportunities to use mathematical models and computing software to analyse planning data.

## COURSE LEARNING OUTCOMES / COMPETENCIES

Upon successful completion of this course, the student will be able to:
- differentiate between descriptive and inferential statistics;
- differentiate between parametric and non-parametric statistical analysis;
- analyse data manually through formulae;
- analyse data through computer software;
- draw inference from data calculated; and
- build models through statistical analysis.

## GRADING SYSTEM FOR THE COURSE

This course will be graded as follows:

| | |
|---|---|
| Class Attendance | 5% |
| Assignments | 15% |
| Test(s) | 20% |
| Final Examination | 60% |
| **TOTAL** | **100%** |

## GENERAL INSTRUCTIONS

*Attendance:* It is expected that every student will be in class for lectures and also participate in all practical exercises. Attendance records will be kept and used to determine each person's qualification to sit for the final examination. In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with any of the instructors, indicating the reason for the absence.

*Academic Integrity:* Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances are prohibited. You are not allowed to make copies of another person's work and submit it as your own; that is plagiarism. All cases of academic dishonesty will be reported to the University Management for appropriate sanctions in accordance with the guidelines for handling students' misconduct as spelt out in the Students' Handbook.

***Assignments and Group Work:*** Students are expected to submit assignments as scheduled. Failure to submit an assignment as at when due will earn you zero for that assignment. Only under extenuating circumstances, for which a student has notified any of the instructors in advance, will late submission of assignments be permitted.

***Code of Conduct in Lecture Rooms and Laboratories:*** Students should turn off their cell phones during lectures. Students are prohibited from engaging in other activities (such as texting, watching videos, *etc*.) during lectures. Food and drinks are not permitted in the laboratories.

## READING LIST

[4]Abayomi, O. I. (2009). *COMPUTER-AIDED DATA ANALYSES For Manager and Researchers.* Lagos, Nigeria: omv Publishers Ltd.

[4]Morenikeji, W. (2006). *RESEARCH & ANALYTICAL METHODS (FOR SOCIAL SCIENTISTS, PLANNERS AND ENVIRONMENTALISTS).* Jos, Nigeria: Jos University Press LTD.

[1]Okoko, Eno. (2001). *Quantitative Techniques in Urban Analysis.* Ibadan: Kraft Books Limited.

[1]Spiegel, M. R. (2008). *SCHAUM'S OUTLINES OF Theory and Problems of STATISTICS Fourth Edition.* New York, U.S.A: McGRAW-HILL.

*Legend*
1- Available in the University Library
2- Available in Departmental/School Libraries
3- Available on the Internet.
4- Available as Personal Collection
5- Available in local bookshops.

# COURSE OUTLINE

| Week | Topic | Remarks |
|------|-------|---------|
| 1 | Introduction and Course Overview<br>History and Types of Computers | During this first class, the expectation of the students from the course will also be documented. |
| 2 & 3 | Exploring the Computer (Part 1)<br>• Hardware Components<br>• Software Components | Practical exercise will involve opening up a desktop PC to examine the components and specify their functions. |
| 4 & 5 | Exploring the Computer (Part 2)<br>• Computer Configurations<br>• Device Manager<br>• Operating Systems<br>• Windows Attributes<br>• Windows Display<br>• Desktop Themes<br>• Screen Resolution<br>• Dual Monitors<br>• Mouse Settings<br>• Start Menu<br>• User Accounts | When learning about computer configurations, students will be taught on what to look for when deciding on what PC or laptop to buy.<br><br>The lecture on Operating Systems will involve brief introduction to various operating systems but emphasis will be laid on Windows. |
| 6 | File and Disk Management | Exercises will involve creating folders and sub-folders, and using Antivirus program to clean up a disk. |
| 7 & 8 | Word Processing<br>• Creating a Document<br>• Formatting a Document<br>• Editing a Document (Cut, Copy, Paste)<br>• Page Layout<br>• Save Options<br>• Adding Graphics to Document<br>• Printing | Students will be requested to prepare a well formatted document as assignment.<br><br>MID-SEMESTER TEST |
| 9 & 10 | Spreadsheets<br>• Creating Workbooks<br>• Spreadsheet Layout<br>• Input Data<br>• Formatting Data<br>• Copy and AutoFill<br>• Simple Calculations<br>• Sorting and Filtering<br>• Charts<br>• Printing Worksheets | Microsoft Excel is the spreadsheet program to be used. Students will be taught on efficient use of the program for routine activities. |

| 11 & 12 | PowerPoint Presentation<br>  • Overview of Microsoft PowerPoint<br>  • Creating Slides<br>  • Inserting graphics into slides<br>  • Formatting Slides<br>  • Extracting points from documents<br>  • Use of Animations | Students will be divided into groups and given topics to prepare slides on, for group presentation during the lab session. |
|---|---|---|
| 13 & 14 | The Internet<br>  • The Webpage Layout<br>  • Home Pages and Web Addresses<br>  • Browsers (Internet Explorer, Firefox, Mozilla)<br>  • Search Engines (Google, Yahoo, *etc*.)<br>  • Creating Emails<br>  • Social Networking (Facebook, Twitter, MySpace, *etc*.)<br>  • Blogging (Visit www.blogger.com to sign in)<br>  • Creating a Website (Go to www.webs.com and click Start Now) | The Internet is a very powerful tool for research. Students will be taught on how to make the best use of it for their academic pursuits. |
| 15 | REVISION | This is the week preceding the final examination. At this time, evaluation will be done to assess how far the students' expectations for the course have been met. |