**INFORMATION SYSTEMS PROGRAMME COURSE STRUCTURE**

# Table 1: Covenant University (CU) – Information Systems Programme – CCMAS Harmonized Global Course Structure

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Level** | **GST/ENT** | **Basic Science** | **COLLEGE COURSES** | **Programme** | **SIWES** | **CU** | **Total**  **Units** |
| **100** | **5** | **13** | **6** | **13** | **0** | 3 | **40** |
| **200** | **4** | **3** | **6** | **16** | **0** | 5 | **34** |
| **300** | **4** | **0** | **0** | **17** | **6** | 1 | **28** |
| **400** | **1** | **0** | **3** | **29** | **0** | 5 | **38** |
| **Total** | **14** | **26** | **15** | **75** | **6** | 11 | **140** |

**Table 2: Covenant University (CU) – B.Sc Information Systems Programme Breakdown into Source**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Level** | **NUC** | **PROFESSIONAL**  **(if any)** | **COV** | **Programme** | **Total**  **Units** |
| **100** | **26** |  | **4** | **10** | **40** |
| **200** | **22** |  | **5** | **7** | **34** |
| **300** | **21** |  | **1** | **6** | **28** |
| **400** | **19** |  | **6** | **13** | **38** |
| **Total** | **88** |  | **16** | **36** | **140** |

**COVENANT UNIVERSITY OTA**

**DEPARTMENT OF INFORMATION SCIENCES**

**30% ADDITIONAL COURSES TO CCMAS**

**SUMMARY**

**100 Level Information Systems Courses by Semesters**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **100 LEVEL**  Alpha Semester | | | | | |
| **Course Code** | **Course Title** | **Units** | **Status** | **LH** | **PH** |
| COV-CSC111 | Computer Application Packages I | 1 | C | 0 | 45 |
| \*ACC101 | Introduction to Financial Accounting I | 3 | C | 30 | 45 |
| \*ECO101 | Principle of Economics I | 2 | C | 30 | 0 |
| COV-ENT111 | Design Thinking | 1 | C | 0 | 45 |
| COV-TMC111 | Introduction to Total Man Concept | 1 | C | 15 | 0 |
| **SUB TOTAL** | | **8** |  |  |  |
| Omega Semester | | | | | |
| COV-CSC122 | Computer Application Packages II | 1 | C | 0 | 45 |
| \*ACC102 | Introduction to Financial Accounting II | 3 | C | 30 | 45 |
| COV-ENT 121 | Technopreneurship (Technology and Entrepreneurship) | 1 | C | 0 | 45 |
| COV-TMC121 | Self-Discovery Methods | 1 | C | 15 | 0 |
| **SUB TOTAL** | | **6** |  |  |  |
| **TOTAL** | | **14** |  |  |  |

**\*Borrowed courses from NUC CCMAS**

**200 Level Information Systems Courses by Semesters**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **200 LEVEL**  Alpha Semester | | | | | |
| **Course Code** | **Course Title** | **Units** | **Status** | **LH** | **PH** |
| \*SEN201 | Introduction to Software Engineering | 2 | C | 30 | 0 |
| \*CYB201 | Introduction to Cybersecurity and Strategy | 2 | C | 30 | 0 |
| COV-TMC211 | Success Parameters | 1 | C | 15 | 0 |
| COV-DLD211 | Introduction to Leadership Development | 1 | C | 0 | 45 |
| **SUB TOTAL** | | **6** |  |  |  |
| Omega Semester | | | | | |
| COV-CSC222 | Python Programming Language | 3 | C | 30 | 45 |
| COV-ENT 221 | Agripreneurship (Agriculture and Entrepreneurship) | 1 | C | 0 | 45 |
| COV- TMC221 | Personal Development and Capacity Building | 1 | C | 15 | 0 |
| COV-DLD221 | Dynamics of Leadership Development | 1 | C | 0 | 45 |
| **SUB TOTAL** | | **6** |  |  |  |
| **TOTAL** | | **12** |  |  |  |

**\*Borrowed courses from NUC CCMAS**

**300 Level Information Systems Courses by Semesters**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **300 LEVEL**  Alpha Semester | | | | | |
| **Course Code** | **Course Title** | **Units** | **Status** | **LH** | **PH** |
| COV-CSC311 | Internet Programming | 2 | C | 15 | 45 |
| COV-CSC315 | Operation Research | 2 | C | 30 | 0 |
| \*CSC309 | Artificial Intelligence | 2 | C | 15 | 45 |
| COV-TMC311 | Man in Spiritual and Socio-Political Contexts | 1 | C | 15 | 0 |
| **SUB TOTAL** | | **7** |  |  |  |
| Omega Semester | | | | | |
| **SUB TOTAL** | | **0** |  |  |  |
| **TOTAL** | | **7** |  |  |  |

**\*Borrowed courses from NUC CCMAS**

**400 Level Information Systems Courses by Semesters**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **400 LEVEL**  Alpha Semester | | | | | |
| **Course Code** | **Course Title** | **Units** | **Status** | **LH** | **PH** |
| ACC303 | Management Accounting (Performance Management) | 3 | C | 30 | 45 |
| MKT211 | Principle of Marketing Management | 2 | C | 30 | 0 |
| COV-ENT411 | Product Development and Commercialization | 1 | C | 0 | 45 |
| COV- TMC411 | Self-Management Techniques | 1 | C | 15 | 0 |
| COV-DLD411 | Leadership Skills, Styles and Settings | 1 | C | 0 | 45 |
| **SUB TOTAL** | | **8** |  |  |  |
| Omega Semester | | | | | |
| COV-INS422 | Decision Support System | 2 | C | 30 | 0 |
| COV-INS424 | Knowledge Management | 3 | C | 45 | 0 |
| COV-ENT 421 | Start-up Growth Strategy | 1 | C | 0 | 45 |
| COV- TMC421 | Issues in Marriage and Family Life I | 1 | C | 15 | 0 |
| COV-DLD421 | Dynamics of Leadership Development | 1 | C | 0 | 45 |
| **ELECTIVES (Minimum of 3 Units Must be Registered by the Students)** | | | | | |
| COV-INS426 | Business Intelligence | 3 | E | 45 | 0 |
| \*DTS204 | Statistical Computing Inference and Modelling | 3 | E | 45 | 0 |
| **SUB TOTAL** | | **11** |  |  |  |
| **TOTAL** | | **19** |  |  |  |

**\*Borrowed courses from NUC CCMAS**

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-CSC111**: Computer Application Packages I (**1 Unit Compulsory; LH: 0; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information systems, who are highly skilled in practice of preparing document, making presentations and quick reporting of data in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines

**Overview**

Computer Application Packages I is the use of computer for document processing, creating presentations and manipulating data for reporting. The choice of Microsoft office package is sound due to its practical relevance in the industry and academia till date. The package has evolved over many years and it still remains the most popular choice for word processing, presentation and reporting.

The goal of this course is to expose the undergraduate student at 100 level to the use of Microsoft office packages, which include Microsoft word, Power point and Microsoft excel. Thus, the course is designed to build the capacity of the student in document processing, presentation and data reporting.

**Objectives**

The objectives of this course are to:

1. explain the use of Microsoft word for word processing: enter and edit text, save and browse document;
2. describe how to use Microsoft word to enhance the appearance of a document by using various formatting options and create tables, insert headers and footers, print documents and insert graphics;
3. explain how to use Power point for creating new presentations that include text, graphics, WordArt, tables, charts and diagram;
4. describe how to use Microsoft Excel to enter and edit text, values, save workbooks in various format, move and copy data; and
5. explain how to use Microsoft Excel to manipulate data with formulas, manage multiple worksheet and work books efficiently.

**Learning Outcome**

On completion of the course, students should be able to:

1. use Microsoft word to enter and edit text, and save and browse documents;
2. prepare documents by using various formatting options and create tables, insert headers and footers, proof and print documents and insert graphics;
3. create new presentations using Microsoft PowerPoint that include text, graphics, WordArt, tables, charts, diagram, edit and format slide content, and apply transition effect;
4. use Microsoft Excel to enter and edit text, values, save workbooks in various format, move and copy data; and
5. manipulate data with Microsoft Excel using functions and formulas, manage multiple worksheet and work books efficiently.

**Course Contents**

Getting start with Microsoft Word. Navigating and selection technique. Document navigation. Editing text. Formatting text. Tables, page layout. Proofing and printing outline. Graphics. Creating tables. Creating charts. Getting start with Microsoft PowerPoint. New presentation. Formatting slides. Drawing objects. Graphics. Table and charts. Proofing and delivering presentations. Graphics and multimedia content. Getting start with Excel. Entering and editing data. Modifying a worksheet. Using functions. Formatting worksheets. Printing. Creating charts. Managing large worksheet. Using multiple worksheets and workbooks. Web and internet features. List and tables

**Minimum Academic Standard**

Computer Laboratory with different Microsoft Office (One Computer to One Student).

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

ACC101: **Introduction to Financial Accounting I** (3 Units Compulsory; LH: 30; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems across various disciplines such as accounting, who are highly equipped with the basic skills needed to keep proper records of financial proceedings both at personal and industry levels in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This course handles the technical skills needed to analyse financial statements and disclosures for use in financial analysis and learn how accounting standards and managerial incentives affect the financial reporting process. The content is introductory, packaged for anyone interested in learning how to read and understand account records. The student would be taught to define and gain clarity regarding various concepts found in accounting.

The goal of this course is to expose the undergraduate student at 100 level to various accounting topics such as bookkeeping, methods of keeping account books, bank reconciliation statements, and handling a ledger. This will enable the students have good understanding of how to collect, store, and process financial and accounting data and produce informational reports that managers or other interested parties can use to make relevant business decisions.

**Course Objectives**

The objectives of the course are to:

1. describe the nature and scope of accounting;
2. differentiate between bookkeeping and accounting;
3. discuss the objectives of financial accounting;
4. appreciate various branches of accounting; and methods of recording accounting data using manual and electronic devices;
5. Describe the preparation of basic accounting records from primary books to extraction of trial balance;
6. train the student to correct basic posting errors; and
7. equip the student to prepare bank reconciliation statements.

**Learning Outcomes**

At the end of this course, students should be able to:

1. describe the nature and scope of accounting;
2. differentiate between bookkeeping and accounting;
3. discuss the objectives of financial accounting;
4. appreciate various branches of accounting and methods of recording accounting data using manual and electronic devices;
5. prepare basic accounting records from primary books to extraction of trial balance;
6. correct basic posting errors; and
7. prepare bank reconciliation statements.

**Course Contents**

The nature and scope of accounting. Definition of bookkeeping and accounting. Differences and similarities between bookkeeping and accounting. Objectives of financial accounting. Financial accounting cycle. Various branches of accounting. Methods of recording accounting data using manual and electronic devices. Source documents for book-keeping and accounting. Original/principal/prime books of entry/ledgers in accounting. Principles of double-entry and accounting equation. The trial balance. Bank reconciliation statement. Classification of revenue/receipts and expenditure (current and capital).

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

ECO101: **Principles of Economics I** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of basic Economic concepts and principles, who are highly skilled in applying the knowledge obtained from this course in various Information Systems applications and projects in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This course introduces a broad range of economic concepts, theories, and analytical techniques. It considers microeconomics - the analysis of choices made by individual decision-making units (households and firms). The use of a market, supply and demand model will be the fundamental model in which trade-offs and choices will be considered through comparison of costs and benefits of actions. Production and market structure will be discussed. The course is introductory and little knowledge is needed to participate.

The goal of the course is to expose the undergraduate Information Systems students to the basic concepts in economics including scarcity, choice and scale of preference; basic laws of demand and supply. The emphasis is laid on equipping the students with this knowledge and how it can be further integrated into various Information Systems applications and projects.

**Course Objectives**

The objectives of this course are to:

1. introduce the student to the basic concepts in economics including scarcity, choice and scale of preference; basic laws of demand and supply;
2. educate the student on the nature of elasticity and its applications, as well as short and long run production functions; and
3. discuss pricing of factors of production and market structure consisting of perfect competitive market and imperfect competitive markets

**Learning Outcomes**

At the end of the course, the students should be able to:

1. identify the basic concepts in economics including scarcity, choice and scale of preference; basic laws of demand and supply;
2. explain the nature of elasticity and its applications, as well as short and long run production functions; and
3. discuss pricing of factors of production and market structure consisting of perfect competitive market and imperfect competitive markets.

**Course Contents**

An introduction to the nature of economic science and its basic problem of scarcity and choice. The methodology of economics and major areas of specialization. Historical development of ideas from the classical, neoclassical, utilitarian, and welfare economists. Major findings in the various areas of specialization and elementary principles of microeconomics, as well as partial equilibrium analysis. Demand and supply, and their laws. Determinants and types in statement and graphical format. The firms and production functions, as well as market structure.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

Centre for Entrepreneurial Development Studies

University Wide Course

All Programs

**COV-ENT111:** **Design Thinking** (1 Unit Compulsory; LH: 0; PH: 45)

**Senate Approved Relevance**

Covenant University (CU) is fashioned towards producing graduates with sound knowledge and a broad understanding of the scope and contents of entrepreneurship. CU graduates would have the right professional attitudes, ethics and skills in entrepreneurship that would enable them to be creative in tackling business problems. The students will further be exposed to other branded programmes such as Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of CU graduates. It thus assists them to be very relevant in all areas of the business system and national economy, including handling the challenges of the changing business environment.

In accordance with the University’s vision of Raising a New Generation of Leaders, we endeavour to produce graduates that are job creators and not just potential employees. Apart from enhancing the commercialisation knowledge of the students, the graduates of Covenant University would also be simultaneously prepared to become corporate entrepreneurs. With adequate skill in design thinking, the students would be simultaneously prepared for corporate entrepreneurship as well as independent and creative research at postgraduate level.

**Overview**

This course is designed to evolve and sharpen both the imaginative and creative ability of all the undergraduate students of Covenant University thereby cultivating their entrepreneurial mindset. The word "design" has traditionally been used to describe the visual aesthetics of objects such as books, websites, products, interiors, architecture, and fashion. But increasingly, the definition of design has expanded to include not just artifacts but strategic services and systems. As the challenges and opportunities facing businesses, organizations, and society grow more complex, and as stakeholders grow more diverse; an approach known as "design thinking" is playing a greater role in finding meaningful paths forward.

The world and its challenges demand a new breed of professional—those who are trained to drive innovation no matter the situation, industry, or problem. This course draws on methods from social sciences, and combines them with ideas from the arts, tools from the engineering and design and insights from the business world. The goal of Design Thinking is, therefore, to provide a solid foundation for entrepreneurship courses by raising creative thinkers who will be ready to build entrepreneurial skills and competencies required for the world of work.

**Objectives**

The specific objectives of the course are to:

1. explain what is meant by design thinking and introduce the students to different stages in design process;
2. Identify and demonstrate the steps involved in design research that will enable the students to identify potential customer needs;
3. describe how the students can immerse themselves directly into an experience to evoke empathy;
4. expose the students to different ideation methods that will enable them to generate viable ideas;
5. describe the importance of visualisation and communication in design thinking; and
6. explain the role of teamwork in design thinking.

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**Learning Outcomes**

On completion of this course, the student should be able to:

1. develop a strong understanding of the design process and how it can be applied in a variety of business settings;
2. undertake design research and understand the unique needs of a company around specific challenges;
3. build empathy for target audiences from different cultures;
4. develop and test innovative ideas through a rapid iteration cycle;
5. create at least a visual representation of an idea; and
6. develop the willingness to leverage on teamwork for creativity.

**Course Contents**

Introduction to design thinking. Design research strategies. Introduction to synthesis. The art of ideation. Prototyping strategies. User testing. Journey mapping and ideation. Mind mapping. Customer co-creation. Value chain analysis. Team work. Visualizing ideas. Communicating ideas and effective storytelling.

**Minimum Academic Standard**

Startup Lab/Business hub with ideation boards

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC111: **Introduction to Total Man Concept** (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Introduction to Total Man Concept lays the foundation for a four to five years journey into the knowledge of God and self. It covers several perspectives and schools of thought on the origin of man while focusing on and adopting the Biblical account. The course leads the students in the exploration of the purpose of existence and the need to find and maintain their place in God’s master plan.

The course aims to expose students to the fundamental issues around man’s existence and purpose. It also introduces the students to the seven Core Values of Covenant University: Spirituality, Possibility Mentality, Capacity Building, Integrity, Responsibility, Diligence and Sacrifice. The Core Values will be taught from a scriptural standpoint and with experiential examples.

**Objectives**

The specific objectives of the course are to:

1. define the concept of the total man;
2. identify the elements of the triune nature of man;
3. identify the Core Values of Covenant University
4. discuss how each core value of the University helps to live as a total man; and
5. highlight the demands of the seven core values.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. define the concept of the total man;
2. identify the three (3) elements of the triune nature of man;
3. identify the seven (7) Core Values of Covenant University
4. discuss in clear terms how each core value of the University helps to live as a total man; and
5. highlight at least three (3) demands of the seven core values.

**Course Contents**

Introductory lecture. What is Total Man concept? The triune nature of man. The core value of Spirituality. The core value of Possibility Mentality. The core value of Capacity Building. The core value of Integrity. The core value of Responsibility. The core value of Diligence. The core value of Sacrifice

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-CSC122: **Computer Application Packages II (**1 Unit Compulsory; LH: 0; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems, who are highly skilled in practice of graphic editor and image designs in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines

**Overview**

Computer Application Packages II is the use of computer for graphic editor and image designs. The choice of Adobe Photoshop is sound due to its practical relevance in the industry and academia till date. The package has evolved over many years and it still remains the most popular choice for graphic editor and image designs.

The goal of this course is to expose the undergraduate student at 100 level to the use of Adobe Photoshop. Thus, the course is designed to build the capacity of the student in graphic editor and image design.

**Objectives**

The objectives of this course are to:

1. describe what Adobe Photoshop is and its usefulness;
2. demonstrate to the student how to design images with Adobe Photoshop;
3. demonstrate to the student how to use selections, layers, and painting tools;
4. demonstrate to the student how do photo retouching using different methods;
5. demonstrate to the student how to make colour corrections;
6. demonstrate to the student how use masks and the quick mask mode;
7. demonstrate to the student how use the pen tool;
8. demonstrate to the student how to create special effects; and
9. show the student how to print and export designs to another environment.

**Learning Outcome**

On completion of the course, students should be able to:

1. explain what Adobe Photoshop is and how it can be useful in practice;
2. use Adobe Photoshop to design images;
3. use the selections, layers, and painting tools;
4. perform photo retouching using different methods;
5. make colour corrections;
6. use masks and the quick mask mode;
7. use the pen tool in adobe Photoshop;
8. create special effects; and
9. print and export designs into another environment.

**Course Contents**

Getting started using photoshop. Working with images. Resizing and cropping images. Working with basic selections. Layers. Painting in photoshop. Photo retouching. Colour correction. Using masks and the quick mask mode. Working with pen tool. Creating special effects. Printing and exporting designs.

**Minimum Academic Standard**

Computer Laboratory with Adobe Photoshop (One Computer to One Student).

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

ACC102: **Introduction to Financial Accounting II** (3 Units Compulsory; LH: 30; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems across various disciplines such as accounting, who are highly equipped with the basic skills needed to keep proper records of financial proceedings both at personal and industry levels in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This course handles the technical skills needed to analyse financial statements and disclosures for use in financial analysis and learn how accounting standards and managerial incentives affect the financial reporting process. The content is an upgrade from financial accounting 1. This package takes the student further to learn the elements and concepts behind specific types of accounts and how to handle the errors found. Knowledge of the first package is required for this.

The goal of this course is to expose the undergraduate student to various accounting topics such as financial reporting, relevant accounting bodies and roles of Information Systems in accounting. This will enable the students develop relevant knowledge and skills for improving organisational performance in the area of financial reporting and record keeping.

**Course Objectives**

The objectives of this course are to:

1. discuss the linkage between accounting and other information systems;
2. define the conceptual framework for financial reporting;
3. identify the users and uses of financial statements/reports;
4. discuss the link between the fundamental concepts and convention in financial accounting to financial report preparation;
5. discuss the types of accounting errors and how to correct them;
6. discuss control and suspense accounts and their uses;
7. learn how to prepare control accounts;
8. learn how to prepare accounts for not-for-profit organizations;
9. discuss the different between single entry and incomplete records;
10. learn how to prepare trading, profit or loss accounts of a sole trader, including adjustments; and
11. discover the various accounting standard bodies.

**Learning Outcomes**

At the end of this course, students should be able to:

1. explain the linkage between accounting and other information system;
2. define the conceptual framework for financial reporting;
3. identify the users and uses of financial statements/reports;
4. link the fundamental concepts and convention in financial accounting to financial report preparation;
5. list the types of accounting errors and how to correct them;
6. explain suspense accounts and their uses;
7. prepare control accounts;
8. prepare accounts for not-for-profit organizations;
9. differentiate single entry and incomplete records;
10. prepare trading, profit or loss accounts of a sole trader, including adjustments; and
11. state the roles and functions of accounting standards setting bodies – financial Reporting Council of Nigeria (FRCN) and International Accounting Standard Board (IASB).

**Course Contents**

Accounting as information system within the organisation. Limitations of financial accounting, conceptual framework for financial reporting covering objectives. Elements, users and uses, qualitative characteristics of useful accounting information. Accounting concepts and conventions. Correction of errors, suspense/memorandum account, control account, characteristics of non-profit and not-for-profit organisations. Preparation of accounts from incomplete record/single entries, the trading, profit or loss account, and statement of financial position of a sole trader, including adjustments. Introduction to the evolution of accounting bodies and standards: NASB, FRCN, IASC, IASB, SAS, IAS, and IFRS.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

Centre for Entrepreneurial Development Studies

University Wide Course for

All Programmes

**COV-ENT121:** **Technopreneurship (Technology and Entrepreneurship)** (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

Covenant University (CU) is fashioned towards producing graduates with sound knowledge and a broad understanding of the scope and contents of entrepreneurship. This course is a branded course targeted at producing the graduates that we envision. CU graduates would have the right professional attitudes, ethics and contemporary skills in entrepreneurship that would enable them to be creative in tackling business problems. The students will further be exposed to other branded programmes such as Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of CU graduates. It thus assists them to be very relevant in all areas of the business system and national economy, including the formation and management of technology start-ups.

In accordance with the University’s vision of Raising a New Generation of Leaders, we endeavour to produce graduates that are job creators and not just potential employees. This course will not only enable the graduates of CU to be tech-savvy but it will further propel many of them towards becoming founders of technology-based start-ups.

**Overview**

This course will help to equip Covenant University graduates with contemporary sills needed for the modern day entrepreneurship. It further emphasises the need for the deployment of technology in entrepreneurial processes.

Apart from the deployment of technology for ideation and start-up formation, this course shall focus on cyber security and Social media marketing. Cyber security is about protecting yourself and others from attacks that are carried out primarily with computers. Meanwhile, social media marketing entails the deployment of social media for marketing activities.

**Objectives**

The specific objectives of the course are to:

1. discuss the meaning of technopreneurship by identifying various components of technopreneurship;
2. demonstrate how to deploy social media for entrepreneurial marketing;
3. illustrate how content marketing are created and applied in business;
4. describe how to abide by email marketing best practices;
5. demonstrate how to develop sales page; and
6. illustrate how to identify various forms of cyber threats, vulnerabilities and attacks; and
7. illustrate the art of protecting business secrets.

**Learning Outcomes**

On completion of this course, the student should be able to:

1. apply appropriate form of technology for entrepreneurial activities based on the nature roles of such components of technopreneurship;
2. deploy different social media marketing strategies for entrepreneurial success;
3. create suitable content marketing for an identified business;
4. deploy email marketing for entrepreneurial success and abide by the best practices;
5. develop professional sales page for their businesses or other identified businesses;
6. detect various forms of cyber threats, vulnerabilities and attacks; and
7. demonstrate how to protect business secrets

**Course Contents**

Use of social media for entrepreneurial marketing. Content marketing strategy. Crafting a digital advertising Plan. Application of email marketing best practices. Affiliate marketing practices. Sales page development. Search marketing activities. Techniques for detecting cyber security threats, vulnerabilities, and attacks. The art of protecting secrets. The art of ensuring integrity. The ethics of working in cyber security.

# Minimum Academic Standard

Business hub/ ICT studio

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC121: **Self-Discovery Methods** (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

The course on Self-Discovery Methods focuses on exploring the ‘self’ with a view to helping the students to identify who they are with respect to God’s divine purpose for their lives. It will focus on a journey of self-discovery by exploring the self and helping students identify who they are. It will serve to answer questions about who I am. Why am I here? And Where am I going? Areas of strengths, unique personality traits, family backgrounds, aspirations, and potentials will be covered.

The course aims to uncover aspects of self that are usually not uncovered in daily living. The emphasis, however, will be on discovering Biblical truths concerning God’s purpose for man. This course is critical to understanding what makes one person different from another. As the students develop a healthy sense of self, as presented in the scripture, they will improve their self-awareness and self-esteem.

**Objectives**

The specific objectives of the course are to:

1. identify the importance of self-discovery;
2. identify the place of spiritual capacity building in the self-discovery process;
3. learn biblical models for self-discovery;
4. state the biblical framework for self-esteem; and
5. situate the connection between personal vision and mission.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. identify six (6) importance of self-discovery;
2. discuss in specific terms the place of spiritual capacity building in the self-discovery process;
3. explain any three (3) biblical models for self-discovery;
4. discuss with practical illustrations the biblical framework for self-esteem; and
5. highlight five (5) connections between personal vision and mission.

**Course Contents**

Introductory lecture. Self-discovery methods. Self-discovery and spiritual capacity. Biblical models of self-discovery. Self-discovery and redemption realities. Biblical framework for self-esteem. The power of conscience. Self-discovery. The nature and power of the mind. Self-discovery and body dynamics. Self-confidence building. Locus of control and attribution. The power of potential.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

SEN201: **Introduction to Software Engineering** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts in software development and engineering, who are highly skilled at developing relevant software at the industry level in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This is a systematic and disciplined approach to software development that aims to create high-quality, reliable, and maintainable software. Software engineering includes a variety of techniques, tools, and methodologies, including requirements analysis, design, testing, and maintenance. This course explores various concepts such as software life cycle, software project management, and legal issues in software engineering, in other to prepare the student to develop software of global standard.

The aim of this course is to prepare our students to have a thorough understanding of software engineering principles and experiential learning opportunities to apply that knowledge to solve real-world problems.

**Course Objectives**

The objectives of this course are to:

1. explain the concept of the software life cycle;
2. discuss the phases of requirements analysis, design, development, testing and maintenance in a typical software life cycle;
3. describe the various software development models and design architectures;
4. use UML for object-oriented analysis and design;
5. discuss extensively different design architectures;
6. explain the various tasks involved in software project management; and
7. discuss the basic legal issues related to software engineering.

**Learning Outcomes**

At the end of this course, students should be able to:

1. describe the concept of the software life cycle;
2. explain the phases of requirements analysis, design, development, testing and maintenance in a typical software life cycle;
3. differentiate amongst the various software development models;
4. utilise UML for object-oriented analysis and design;
5. describe different design architectures;
6. explain the various tasks involved in software project management; and
7. describe the basic legal issues related to Software Engineering.

**Course Contents**

Software Engineering concepts and principles. Design, development and testing of software systems. Software processes: software life cycle and process models. Process assessment models. Software process metrics. Life cycle of software system. Software requirements and specifications. Software design. Software architecture. Software metrics. Software quality and testing. Software architecture. Software validation. Software evolution: software maintenance; characteristics of maintainable software; re-engineering; legacy systems; software reuse. Software Engineering and its place as a computing discipline. Software project management: team management; project scheduling; software measurement and estimation techniques; risk analysis; software quality assurance; software configuration management. Software engineering and law.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

CYB201: **Introduction to Cybersecurity and Strategy** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts in cybersecurity, who are highly skilled detecting and effectively addressing various threats within the cyberspace in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This course introduces students to the fundamental concepts of cybersecurity. A basic understanding that cybersecurity aims to protect information systems (hardware, software and associated infrastructure), the data on them, and the services they provide, from unauthorized access, harm or misuse is to be taught during the course. Other concepts such as identifying, detecting, and defending against cybersecurity threats, and attacks, protecting information assets, and the impact of cybersecurity in society are explored. The student would have a foundational understanding of all cybersecurity entails from this course.

The aim of this course is to expose the students to the technical knowledge and skills needed to protect and defend computer systems and networks. And also, how they can plan, implement, and monitor cyber security mechanisms to help ensure the protection of information system assets.

**Course Objectives**

The objectives of this course are to:

1. explain cybersecurity concepts, its methods, elements, and terminologies of cybersecurity -cyber, security, threat, attack, defence, operations, and solution;
2. discuss common cyber-attacks and threats, cybersecurity issues, challenges and proffered solutions, and build an enhanced view of main actors of cyberspace and cyber operations;
3. discuss the techniques for identifying, detecting, and defending against cybersecurity threats, attacks and protecting information assets;
4. discuss the impact of cybersecurity on civil and military institutions, privacy, business, and government applications;
5. discuss the methods and motives of cybersecurity incident perpetrators, and the countermeasures employed by organisations and agencies to prevent and detect those incidences and software application vulnerabilities; and
6. discuss the ethical obligations of security professionals, evaluate cybersecurity and national security strategies to the typologies of cyber-attacks that require policy tools and domestic response, and define the cybersecurity requirements and strategies evolving in the face of big risk.

**Learning Outcomes**

At the end of this course, students should be able to:

1. explain cybersecurity concepts, its methods, elements, and terminologies of cybersecurity -cyber, security, threat, attack, defence, and operations;
2. describe common cyber-attacks and threats, cybersecurity issues, challenges and proffered solutions, and build an enhanced view of main actors of cyberspace and cyber operations;
3. apply the techniques for identifying, detecting, and defending against cybersecurity threats, attacks and protecting information assets;
4. explain the impact of cybersecurity on civil and military institutions, privacy, business and government applications;
5. identify the methods and motives of cybersecurity incident perpetrators, and the countermeasures employed by organisations and agencies to prevent and detect those incidences and software application vulnerabilities; and
6. state the ethical obligations of security professionals, evaluate cybersecurity and national security strategies to the typologies of cyber-attacks that require policy tools and domestic response, and define the cybersecurity requirements and strategies evolving in the face of big risk.

**Course Contents**

Basic concepts: cyber, security, confidentiality, integrity, availability, authentication, access control, non-repudiation and fault-tolerant methodologies for implementing security. Security policies, best current practices, testing security, and incident response, Risk management, disaster recovery and access control. Basic cryptography and software application vulnerabilities. Evolution of cyber-attacks. Operating system protection mechanisms, intrusion detection systems, basic formal models of security, cryptography, steganography, network and distributed system security, denial of service (and other) attack strategies, worms, viruses, transfer of funds/value across networks, electronic voting, secure applications. Cybersecurity policy and guidelines. Government regulation of information technology. Main actors of cyberspace and cyber operations. Impact of cybersecurity on civil and military institutions, privacy, business and government applications; examination of the dimensions of networks, protocols, operating systems, and associated applications. Methods and motives of cybersecurity incident perpetrators, and the countermeasures employed by organisations and agencies to prevent and detect those incidences. Ethical obligations of security professionals. Trends and development in cybersecurity. Software application vulnerabilities. Evolution of cybersecurity and national security strategies, requirements to the typologies of cyber-attacks that require policy tools and domestic response. Cybersecurity strategies evolving in the face of big risk. Role of standards and frameworks.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

**COV-TMC211: Success Parameters**  (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Success Parameters course offers an exposition on definitions and Biblical parameters for success. It will emphasise the distinction between definitions of success in general parlance compared to definitions and dimensions of success as God ordained it. It explores the foundations for success and related factors in understanding God’s parameters for success, along with framework and specifications in different contexts.

Attention will be paid to bringing up Biblical models of success as contained in the Holy Bible. Understanding success, personal profile building and biographical analysis of some success giants will also form areas of emphasis for this course. By the end of the semester, students will be expected to articulate their mission statement for success, putting these within time-lines and giving attention to preparations needed to actualise these expectations.

**Objectives**

The specific objectives of the course are to:

* + 1. identify general definitions of success;
    2. define success from the Biblical perspective;
    3. discuss specific parameters for sustainable success;
    4. evaluate secular examples of unsustainable success;
    5. identify Biblical examples of success; and
    6. articulate personal commitment to Biblical success secrets.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. identify any three (3) general definitions of success;
2. define in clear terms the Biblical perspective of success;
3. discuss five (5) specific parameters for sustainable success;
4. evaluate any three (3) secular examples of unsustainable success;
5. identify any four (4) Biblical examples of successes; and
6. articulate personal commitment to Biblical success secrets.

**Course Contents**

Introduction to success parameters. Exploration of the definitions of success. Biblical foundations for success. The secrets of success. The place of endowment. The place of work. The place of commitment. The place of character. The place of preparation. Pillars of success in Scriptures. Biblical examples of success (Old Testament). Biblical examples of success (New Testament). The body segment. Physical exercises I. Physical exercises II.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

**Covenant University, Ota**

African Leadership Development Centre

University-Wide Course

Diploma in Leadership Development

**COV-DLD211: Introduction to Leadership Development** (1 Units Compulsory: PH: 45)

**Senate Approved Relevance**

The Diploma in Leadership Development (DLD) programme is designed to produce graduates with a well-grounded knowledge of the concepts of leadership and its application to the array of African and global leadership challenges. The programme offers the redefinition of leadership by emphasising that it is a function of the feat achieved in people’s fields that make them a reference point rather than the position they occupy. DLD is one of the custom-made courses at Covenant University that develop the unique capacity in students to emerge as graduates that go beyond identifying problems to solving them, go beyond the narratives of the blame game to offering expert and intellectual engagements, and go beyond recycling ideas to creating innovative alternatives that are efficient and effective. Consequently, this programme, offered across all the academic departments of the university, will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with sound mental reasoning to pursue and excel in postgraduate studies.

**Overview**

Introduction to Leadership Development is an exploration of the definitions of leadership. It covers several perspectives and schools of thought on leadership while evaluating its strength and weaknesses. The course derives its foundation from Biblical principles and teaches how everyone is created for a purpose and can only excel after finding that purpose.

The course aims to expose students to the fundamental issues around leadership. The principles are applicable in all aspects of life and society. It is the basis for personal, family, corporate or civil life stability. Hence, the course will build the capacity of students in the conceptualisation of leadership and its application to relevant situations.

**Objectives**

The specific objectives of the course are to:

1. define leadership;
2. compare different definitions of leadership;
3. explore the history of leadership;
4. discuss theories of leadership;
5. examine leadership foundations;
6. identify leadership virtues and dispositions;
7. relate self-discovery to leadership development; and
8. discuss the place of vision in leadership.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. define leadership from the Bible;
2. compare at least five (5) different definitions of leadership;
3. identify the historic milestones that defined leadership;
4. identify and apply the elements of at least three (3) theories of leadership;
5. discuss major issues that form leadership foundations;
6. identify at least five (5) leadership virtues and dispositions;
7. apply self-discovery to leadership development; and
8. discuss the place of vision in leadership.

**Course Contents**

Introductory lecture. What is leadership? Leadership and management: A comparative review. Sociological foundation of leadership. Ethical foundation of leadership. Leadership virtues and dispositions. Servant leadership. A service mindset in the 21st century workplace. Biblical foundations of leadership. Start-up leadership: Nuances of leadership in start-ups. Personal development and leadership effectiveness. Self-discovery and leadership effectiveness. Leadership branding and packaging.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-CSC222: **Python Programming Language I** (3 Units Compulsory; LH: 30; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information systems, who are highly skilled in programming approach to solving real-life problem in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information System graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

This course introduces students to Python programming. Python programming is intended for software engineers. Information systems analysts. program managers and user support personnel who wish to learn the programming language. It is intended for students with little or no programming background

The goal of this course is to leads students from the basics of writing and running Python scripts to more advanced features such as file operations, regular expressions, working with binary data, and using the extensive functionality of Python modules. Also to understand why Python is a useful scripting language for developers. ·

**Course Objectives**

The objectives of the course are to:

1. describe basic building blocks of python statements. including selection and loop procedures;
2. describe with practical examples how functions are created and used within python programs;
3. demonstrate the conversion of data from one type to another;
4. describe the use of lists and other important python data structures with various application scenarios;
5. describe how to read and write from CSV files from python programs; and
6. describe the how GUI-based python projects are implemented. using several case studies.

**Learning Outcomes**

At the end of this course. student should be able to:

1. use basic programming tools like “if” and different types of loops;
2. write python programs that demonstrate the use of the concept of functions;
3. demonstrate how to convert data types;
4. explain and demonstrate how to work with lists, tuples, dictionaries, and other important in-built data structures in python;
5. build applications that make use of CSV files; and
6. develop and implement effective python GUI-based projects.

**Course Contents**

Introduction to python language - What is python. Uses of python programming language/python applications. Python for software development. Features of python programming language. Implementations of python, and Python career opportunities. Download and install python and its components. Python language syntax - modes of programming in python. Interactive mode programming. Script mode programming. Creating python programme file. Python identifiers. Python keywords. Lines and indentation. Spilt python statements. Join python statements. Writing code blocks. Comments in python and quotation in python. Python keywords and identifiers. Python comments - purpose/use of comments in computer programming, comments for understanding python code, python comment syntax, python single line comment, multiline comment in python, and writing python comments. Python variables. Python data types - implicit declaration of data types, python numbers (integers, floating-point numbers, and complex numbers), python strings, python boolean data type. Python operators - Python arithmetic, comparison/relational operators, increment operators, logical operators, python identity operators, and python operators precedence. Python control flow/decision making - simple if structure, if-else structure, if elif structure, and nested if structure. Python control flow – looping and branching. Python numbers - integers, floats, and complex numbers. Python strings. Python lists. Python tuples. Python sets. Python dictionaries. Python arrays. Python user-defined functions. Python built-in functions. Python – modules. Python user input. Python file handling. Python exceptions handling. Regular expressions. Python classes and objects. Python methods. Python constructors. Python inheritance. Python polymorphism. Python abstraction. Python encapsulation. Python GUI programming using various GUI frameworks/tool kits

**Lab Work**: Programming assignments involving hands-on practice in the design and implementation of simple database-driven applications

**Minimum Academic Standard**

Computer Laboratory with different workstations with pre-installed tools for writing Python programs (One Computer to One Student).

Covenant University, Ota

Centre for Entrepreneurial Development Studies

University Wide Course for

All Programmes

**COV-ENT 221:** **Agripreneurship (Agriculture and Entrepreneurship)** (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

Covenant University (CU) is fashioned towards producing graduates with sound knowledge and a broad understanding of the scope and contents of entrepreneurship. This course is a branded course targeted at producing the graduates that we envision. CU graduates would have the right professional attitudes, ethics and skills in entrepreneurship that would enable them to be creative in tackling business problems. The students will further be exposed to other branded programmes such as Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of CU graduates. It thus assists them to be very relevant in all areas of the business system and national economy, including handling the challenges of the changing business environment.

In accordance with the University’s vision of Raising a New Generation of Leaders, we seek to empower our graduates to become major players and job creators in the field of agriculture. This course is deliberately crafted to produce future agripreneurs who will leverage on the business potentials in the agricultural sector to become major actors in the actualisation of sustainable development goals.

**Overview**

This course has been specially designed to train and equip potential graduates with skills, not only to be able to manage their own agribusiness ventures in future, but also to become well-trained corporate entrepreneurs in their chosen industry. The curriculum of this course is packaged with action - oriented modules for practical research, accessing the resources for starting and managing agricultural or agro-allied businesses as well as interactive sessions involving direct learning from agricultural practitioners.

The course is flexible and well-structured to accommodate all students irrespective of their academic discipline comprising social sciences and humanities, arts, engineering, science and business background. The main goal of the course is impart the students with the applied knowledge of entrepreneurial process in agriculture namely, planting of leafy vegetables, fish farming and processing of palm oil.

**Objectives**

The specific objectives of the course are to:

1. demonstrate what is meant by ‘Agripreneurship’ and expose students to various branches of Agripreneurship;
2. demonstrate the practical steps involved in planting leafy vegetables;
3. analyse different forms of fish behaviour;
4. demonstrate different means of creating wealth through fish farming;
5. demonstrate the activities involved in processing of palm oil; and
6. analyse different stages involved in marketing of agricultural produce;

**Learning Outcomes**

On completion of this course, the student should be able to:

1. explain the meaning of ‘agripreneurship’ and discuss various branches of agripreneurship;
2. demonstrate the practical steps involved in planting leafy vegetables;
3. manage different forms of fish behaviour by identifying the causes of such behaviour and the appropriate remedies;
4. create wealth through different entrepreneurial processes in fish farming;
5. demonstrate the activities involved in the production of palm oil; and
6. segment, target and position the oil palm for sales through appropriate marketing strategies.

**Course Contents**

Introduction to Agripreneurship. Land preparation and planting of leafy vegetables. Weed control and thinning. Palm oil value chain. Why farms and agro-allied ventures fail. Harvesting and marketing of leafy vegetables. Introduction to fish farming. Potentials in fish farming. Fish behaviours; causes and remedies. 3 Ms of creating wealth in fish farming. Aquarium management. Marketing of fresh and processed fish. Processing of palm oil. Writing of business plan for agribusiness.

**Minimum Academic Standard**

Farm land and oil palm processing facilities.

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC221: **Personal Development and Capacity Building** (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Personal Development and Capacity Building focuses on the process of continuous learning in the process of achieving sustainable success. From the Biblical perspective, the course discourages the notion that any stage of education is exclusive; instead, a successful person must continue to evolve to respond adequately to the ever-changing society.

The course aims to expose students to the vital requirements of vision and mission in the quest for success. Students will learn the importance of focus in setting and achieving their goals. Further, the course enlightens students on the need to develop and maintain a personal brand to stand out and become top-of-the-mind personalities. They will also cultivate a value for mentorship.

**Objectives**

The specific objectives of the course are to:

* + 1. identify the need for personal motivation;
    2. explain the importance of lifelong learning;
    3. discuss the values of having a personal vision and mission;
    4. discuss the role of focus in the pursuit of vision;
    5. identify ways to set and achieve goals effectively;
    6. identify the benefits of setting boundaries and building connections when appropriate;
    7. explain the benefits of effective personal branding; and
    8. highlight the role of mentors in the process of personal development.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. identify at least four (4) needs for personal motivation;
2. explain ten (10) importance of lifelong learning;
3. discuss at least seven (7) values of having a personal vision and mission;
4. discuss in clear terms the role of focus in the pursuit of vision;
5. identify at least five (5) ways to set and achieve goals effectively;
6. identify at least five (5) benefits of setting boundaries and building connections when appropriate;
7. explain the six (6) benefits of effective personal branding; and
8. highlight the role of mentors in the process of personal development.

**Course Contents**

Understanding personal development/capacity building. Understanding self-motivation. Positive and creative thinking. Following personal vision and mission. Essentials of lifelong learning. Empowerment for focus. Drive and passion for personal development. Goal setting and personal empowerment. Building boundaries and bridges for personal development. Personal branding and marketing for exploits. Standing on the shoulders of giants.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

**Covenant University, Ota**

African Leadership Development Centre

University-Wide Course

Diploma in Leadership Development

**COV-DLD221: Dynamics of Leadership Development** (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

The Diploma in Leadership Development (DLD) programme is designed to produce graduates with a well-grounded knowledge of the concepts of leadership and its application to the array of African and global leadership challenges. The programme offers the redefinition of leadership by emphasising that it is a function of the feat achieved in people’s fields that make them a reference point rather than the position they occupy. DLD is one of the custom-made courses at Covenant University that develop the unique capacity in students to emerge as graduates that go beyond identifying problems to solving them, go beyond the narratives of the blame game to offering expert and intellectual engagements, and go beyond recycling ideas to creating innovative alternatives that are efficient and effective. Consequently, this programme, offered across all the academic departments of the university, will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with sound mental reasoning to pursue and excel in postgraduate studies.

**Overview**

Dynamics Of Leadership Development focuses on the forces or properties that stimulate growth, development, or change in the leadership process. It provides an in-depth exploration of specific determinants of leadership outcomes and how students can deliberately engage them for effectiveness.

The course aims to expose students to the roles of apprenticeship and mentorship in leadership as well as the fundamental forces that propel growth in leadership capacity building. Leadership growth factors such as preparation, focus, lifelong learning, humility, character, courage, creativity, innovation and emotional intelligence will be learnt by students.

**Objectives**

The specific objectives of the course are to:

1. identify the dynamics of leadership;
2. discuss the relationship between leadership and followership;
3. discuss the benefits of lifelong learning in the leadership process;
4. examine the role of character in sustaining leadership results;
5. highlight the benefits of courage in executing leadership tasks;
6. identify how spirituality can enhance corporate leadership; and
7. differentiate between the output of a prepared leader and an accidental leader.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. identify at least seven (7) dynamics of leadership;
2. discuss five (5) relationships between leadership and followership;
3. discuss six (6) benefits of lifelong learning in the leadership process;
4. examine five (5) roles of character in sustaining leadership results;
5. highlight ten (10) benefits of courage in executing leadership tasks;
6. identify how spirituality can enhance corporate leadership; and
7. differentiate between the output of a prepared leader and an accidental leader.

**Course Contents**

Introductory lecture: Dynamics of leadership development. Leadership and biographical studies. Leadership: Apprenticeship and discipleship. Leadership development: The force of preparation. Leadership development: The role of focus. The force of lifelong learning. Leadership development: The force of character. The role of spirituality in corporate leadership. Leadership development: The force of courage. Leadership Development: The force of personal value system. Making global impact through service. Leadership development: The force of emotional intelligence.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-CSC311: **Internet Programming (**2 Units Compulsory; LH: 15; PH: 45)

**Senate Approved Relevance**

The Computer Science programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems, who are highly skilled in creating web applications and internet programming in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Computer Science graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Computer Science and allied disciplines.

**Course Overview**

Internet Programming is a web programming language for dynamic web pages construction and design. The emphasis lies on standardized HTML and CSS to create structure and appearance. The course also covers basic JavaScript to create a dynamic behaviour on web sites. Other parts that are covered are availability. responsive design and validation of web pages.

The goal of the course is to expose the undergraduate Information Systems students to the fundamental concepts of creating web applications and internet programming. The emphasis is laid on equipping the Information Systems students with the knowledge of internet programming for dynamic web applications.

**Course Objectives**

The objectives of this course are to:

1. describe implementation details involved in creating a basic web page with HTML, CSS and JavaScript;
2. describe what it takes to develop a fully functional website. and also introduce the concept of web page deployment;
3. explain the use of existing packages to create web-based projects;
4. describe the use of external data in creating web pages;
5. describe states and transitioning between states in JavaScript;
6. describe visualisations as it relates to creating web pages with well-rounded UI/UX ideas;
7. explain the concept of developing cross-platform applications;
8. describe REST and RESTful applications;
9. describe web sockets for multiple synchronous access to a shared dataset; and
10. describe the use of Git Repositories for modern-day web-based project development.

**Learning Outcomes**

At the end of this course. students should be able to:

1. structure and implement web pages using html/css and javascript;
2. develop and deploy a fully functioning website on a web server;
3. use existing packages to create web-based projects;
4. create webpages that function using external data;
5. develop javascript applications that transit between states;
6. create visualizations in accordance with ui/ux theories;
7. develop fully working applications that can be used on cross-platforms;
8. implement a restful backend API for storing and retrieving data via ajax calls;
9. use web sockets to allow multiple synchronous access to a shared dataset; and
10. use of Git Repositories for modern-day web-based project development.

**Course Contents**

Basics of HTML and creating webpage and websites. Styling a website: Learn and practice the fundamentals of CSS to add beautiful styling to your web pages. Fundamentals of JavaScript: Syntax, variables, conditionals, and functions. More JavaScript techniques and features including arrays, looping and objects. Interactive JavaScript Websites:Document object model, the interface between JavaScript and HTML elements. Combining HTML CSS and JavaScript into exciting interactive sites. Intermediate JavaScript: Learn techniques to extend JavaScript knowledge including reusable classes. Splitting code into modules and making HTTP requests in JavaScript. Git & GitHub fundamentals. Integrating Git and GitHub to manage versions of your projects using Git branches. Building Front-end Applications with React: Build dynamic and powerful web apps using React.js. JavaScript back-end development: Learn how to create back-end servers using Express.js framework. Creating APIs in JavaScript using the popular Express.js framework. SQL and Databases for web development: SQL fundamentals needed to be a successful full-stack web developer. Building a persistent API: Node-SQLite to connect JS and SQL in web apps. Building your first fully-integrated back-end application. Fundamentals of test-driven development to create reliable full-stack JavaScript web applications.

**Lab Work**: Programming assignments involving hands-on practice in the design and implementation of simple websites and applications, including building of front-end applications with React, building of dynamic and powerful web apps using React.js. Back-end development using JavaScript. Creating back-end servers and APIs in JavaScript using the popular Express.js framework.

**Minimum Academic Standard**

Computer Laboratory with different programming languages (One Computer to One Student).

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-CSC315**:** **Operations Research** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Computer Science programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Computer Science. who are highly skilled in computational and algorithmic approach to solving real-life problem in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS). Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Computer Science graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business. Medical. Educational. Agriculture. etc. In essence. we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Computer Science and allied disciplines.

**Course Overview**

Operations research is an interdisciplinary branch of applied mathematics and formal science that uses methods like mathematical modelling, statistics, and algorithmsto arrive at optimal or near optimal solutions to complex real life problems. The objective of operation research problem is to maximize profit and minimize cost. Achieving this objective takes several iterative processes.

The goal of the course is to expose the undergraduate computer science students to the fundamental concepts and models of operation research. The emphasis is laid on equipping the computer science students with the knowledge and models of operation research, for easy implementation of the processes to save time and cost.

**Objectives**

The objectives of the course are to:

1. define operation research;
2. describe the steps for solving operation research problems;
3. describe how to formulate real-life problems such as linear programming model;
4. formulate real-life problems with linear programming model;
5. describe the graphical and simplex methods for solving operation research problems;
6. describe the applicability of linear programming, transportation problems, assignment problems and network analysis to some real-life problems;
7. describe how to solve inventory control management problems with practical examples;
8. describe how to solve project management problems with practical examples; and
9. implement the problem solution models with any programming language of choice.

**Learning Outcomes**

On completion of the course. students should be able to:

1. explain operation research;
2. describe the steps for solving operation research problems;
3. describe how to formulate real-life problems such as linear programming model;
4. formulate real-life problems such as linear programming model;
5. use the graphical and simplex methods for solving operation research problems;
6. apply linear programming, transportation problems, assignment problems and network analysis to some real-life problems or task;
7. solve inventory control management problems with practical examples;
8. solve project management problems with practical examples; and
9. implement at least one of the operation research problem solution models with any programming language of their choice.

**Course Contents**

Overview of the operation research modelling approaches. Linear programming model and its assumption. Formulation of real-life problems as linear programming model. Graphical method. Simplex method with more than two variables. Two phase and M method of simplex method. Transportation problem formulation. Basic Feasible (BF) solution of the transportation problem. Optimality test for transportation BF solution. Iteration with MODI and stepping stone method. Assignment problem formulation and solution. Shortest-path problem. Minimum spanning tree problem. Project network and construction of project network. Project planning and control with Critical Path method (CPM). Project planning and control with Programme Evaluation and Review Technique (PERT). Project planning and control with Earliest and Latest Times. Crashing of projects. Introduction to inventory control management. Objectives of inventory. Basic functions of inventory. Types of inventory. Factors affecting inventory. Deterministic single item inventory model. Economic order quality model. Economic production quantity model. Price discounts model. Dynamic demand models. Deterministic multi-items inventory Mode (unknown cost structure model. known cost structure model). Probabilistic inventory models (single period probabilistic model. single period discrete probabilistic demand model). Implementation of the models using any programming language and deployment.

**Minimum Academic Standards**

Computer Laboratory with different workstations with pre-installed tools and software packages needed for the implementation of some Operations Research solution models (One Computer to One Student).

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

CSC309: **Artificial Intelligence** (2 Units Compulsory; LH: 15; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts in artificial intelligence, who are highly skilled various Artificial Intelligence techniques and technologies in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

AI is a fast-moving technology with impacts and implications for both our individual lives and society. In this course, students will get a basic introduction to the building blocks and components of artificial intelligence, learning about concepts like Turing test, NLP, search algorithms, and others. The student would be taught the various ways AI can be applied to society and the current impact it has had on society.

The goal of this course is to introduce the students to various AI techniques, various reasoning tests, languages used within AI, and other relevant technologies in AI, which will prepare them to apply it to various fields and industries upon graduation.

**Course Objectives**

The objectives of this course are to:

1. discuss AI fundamentals, concepts, goals, types, techniques, branches, applications, AI technology and tools;
2. discuss intelligent agents, their performance, examples, faculties, environment and architectures, and determine the characteristics of a given problem that an intelligent system must solve;
3. describe the Turing test and the “Chinese Room” thought experiment and differentiate between the concepts of optimal reasoning/behaviour and human-like reasoning/behaviour;
4. discuss the role of heuristics and the trade-offs among completeness, optimality, time complexity, and space complexity;
5. explain the types of search and their applications in AI and describe the problem of combinatorial explosion of search space and its consequences;
6. explain knowledge representation, semantic network and frames along with their applicable uses;
7. describe natural language processing, translate a natural language (e.g., English) sentence into a predicate logic statement, convert a logic statement into clause form, and apply resolution to a set of logic statements to answer a query; and
8. analyse programming languages for AI and expert systems technology, and employ application domains of AI.

**Learning Outcomes**

At the end of this course, students should be able to:

1. explain AI fundamentals, concepts, goals, types, techniques, branches, applications, AI technology and tools;
2. discuss intelligent agents, their performance, examples, faculties, environment and architectures, and determine the characteristics of a given problem that an intelligent system must solve;
3. describe the Turing test and the “Chinese Room” thought experiment, and differentiate between the concepts of optimal reasoning/behaviour and human-like reasoning/behaviour;
4. describe the role of heuristics and the trade-offs among completeness, optimality, time complexity, and space complexity;
5. analyse the types of search and their applications in AI and describe the problem of combinatorial explosion of search space and its consequences;
6. demonstrate knowledge representation, semantic network and frames along with their applicable uses;
7. practice natural language processing, translate a natural language (e.g., English) sentence into a predicate logic statement, convert a logic statement into clause form, apply resolution to a set of logic statements to answer a query; and
8. analyse programming languages for AI and expert systems technology, and employ application domains of AI.

**Course Contents**

Overview of Artificial Intelligence. History of AI. Goals of AI. AI techniques. Types of AI. Branches and applications of AI. Advantages and disadvantages. Introduction to intelligent agents. Agent performance, Examples of agents, Agent faculties, rationality, agent environment. Agent architectures. Search. General classes of AI search algorithm problems. Problem solving by search. Types of AI search techniques and strategies. Introduction to the types of problems and techniques in AI. Problem-solving methods. Major structures used in AI programmes. Knowledge Representation. KR and reasoning challenges. KR languages. Knowledge representation techniques such as predicate logic, non-monotonic logic, and probabilistic reasoning. Semantic network - types of relationships, semantic network inheritance, types and components. Introduction to frames. Natural language processing (NLP). Introduction to natural language understanding and various syntactic and semantic structures. Introduction to expert systems - characteristics, components, types, requirements, technology, development. Programming languages for AI. Introduction to computer image recognition.

**Lab work:** Group practical in (i) Turing test practical - Students can act out their own version of the Turing test (ii) Facial recognition practical to aid in teaching students how machine learning works with students simulating a facial recognition algorithm. Practical applications of NLP in groups – (i) Question Answering focuses on building systems that automatically answer the questions asked by humans in a natural language (ii) Spam detection application for detecting unwanted e-mails getting to a user's inbox (iii) Sentiment analysis/opinion mining should be used on the web to analyse the attitude, behaviour, and emotional state of the sender, implemented through a combination of NLP and statistics (iv) Practical exercise of machine translation used to translate text or speech from one natural language to another natural language such as the Google Translator (v) Developing a model to provide word processor software for the spelling correction (vi) Developing a model for speech recognition for converting spoken words into text (vii) Implementing a Chatbot to provide the staff/student's chat services. OR

Group Practical exercise on agents and its environment using simulation of a colony of ants foraging for food; model simulating a message between agents; model simulating the flocking behaviour of birds; model to apply standard search algorithm to the classic search problem of missionaries and cannibals, and how to use communicating agents for searching networks.

Some computer AI animation exercises for any branch of AI. Practical exercise on simple robots coupling and programming. Group project of building a lawn robot for trimming grasses, or any simple design and implementation of robotics.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC311: **Man in Spiritual and Socio-Political Contexts**  (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Man in Spiritual and Socio-Political Contexts is designed to develop a sense of social responsibility in students by showing how a spiritually sound person can also be socially valuable. Based on the Biblical wisdom that Christians are ambassadors of Christ on earth, this course explores how students can positively live and impact their societies without losing their identity or sense of responsibility to God.

The course aims to create awareness in the students to represent Christ by being responsible to the laws of their nations. They will learn their roles nationally and globally and how they can actively participate in the leadership of their society. Managing societal pressure and conflict is vital in ensuring peaceful co-existence in a pluralistic society.

**Objectives**

The specific objectives of the course are to:

* + 1. identify why man does not live in isolation;
    2. describe man’s need for social interactions;
    3. discuss the importance of being generous towards other people;
    4. identify ways to manage conflict and diversity;
    5. highlight the roles of a responsible citizen;
    6. describe ways to manage societal pressures;
    7. discuss ways to become a valuable international citizen; and
    8. discuss the importance of good political consciousness.

**Learning Outcomes**

At the end of this course, the students should be able to:

* + 1. identify four (4) reasons man does not live in isolation;
    2. describe in precise terms man’s need for social interactions;
    3. explain five (5) importance of being generous towards other people;
    4. identify six (6) ways to manage conflict and diversity;
    5. highlight at least ten (10) the roles of a responsible citizen;
    6. describe with illustrations ways to manage societal pressures;
    7. discuss any five (5) ways to become a valuable international citizen; and
    8. discuss the importance of good political consciousness.

**Course Contents**

Introductory lecture: The spiritual man in socio-political contexts. Responsible citizenship. The creationism account. Charity and giving. Man in God's master plan. Managing social relationships. Societal influences and pressures. Conflict and diversity management. Political consciousness. International citizenship.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

ACC303: **Management Accounting (Performance Management) (**3 Units Compulsory; LH: 30; PH: 45)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems across various disciplines such as accounting, who are highly equipped with the basic skills needed to keep proper records of financial proceedings both at personal and industry levels in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Management accounting establishes performance measures of individuals and organizations. Performance measurement cannot be addressed by financial accounting only and hence tools devised by management accounting need to be deployed to achieve efficient management performance measures in each period.

The goal of this course is to equip Information Systems students with the knowledge, skills, and tools to adequately understand and measure the performance of various metrics involved in business management.

**Course Objectives**

The objectives of this course are to:

1. explain budgeting and costing techniques used for planning and control in a business;
2. discuss the behavioural aspect of budgeting and budgetary control;
3. discuss strategic performance management in evaluating and improving organisational performance;
4. discuss application of cost reduction and control techniques for efficiency of business operations;
5. discuss the use of spreadsheet applications in Performance Management;
6. discuss the underlying concepts in Performance Management;
7. discuss how to prepare cost information for decision making, using relevant costs;
8. discuss how to evaluate divisional performances and discuss different transfer pricing techniques;
9. describe various pricing strategies and calculate product prices using these strategies;
10. explain ethical principles relating to Performance Management; and
11. discuss how to evaluate topical issues in Performance Management.

**Learning Outcomes**

At the end of this course, students should be able to:

1. evaluate and apply appropriate budgeting and standard costing techniques to planning and control in business;
2. explain the behavioural aspect of budgeting and budgetary control;
3. explain strategic performance management in evaluating and improving organisational performance;
4. evaluate and apply cost reduction and control techniques for efficiency of business operations;
5. explain the use of spreadsheet applications in Performance Management;
6. explain the underlying concepts in Performance Management;
7. prepare cost information for decision making, using relevant costs;
8. evaluate divisional performances and discuss different transfer pricing techniques;
9. explain various pricing strategies and calculate product prices using these strategies;
10. explain ethical principles relating to Performance Management; and
11. explain and evaluate topical issues in Performance Management.

**Course Contents**

Strategic management accounting techniques in performance management. Budget and budgetary control in relation to the following: forecasting, master and subsidiary budgets, including cash budget, and flexible budgets. The behavioural aspect of budgeting and budgetary control. Standard costing and analysis of variances. Cost reduction and control techniques in business operations. Spreadsheet applications in performance management. Decision making: identification of relevant cost based on given data and information for short term decision making, cost-volume-profit analyses (including single and multiple products) using both numerical and graphical techniques with relevant advice to management. Different pricing strategies. Dealing with uncertainty in decision-making. Application of learning and experience curve theory. Discuss performance management in relation to the following: definitions, nature and scope. Comparison between performance management and cost accounting. Comparison between performance management and financial accounting, cost information for decision making, using relevant costs. Divisional performance and different transfer pricing techniques; various pricing strategies and calculation of product prices using these strategies. Ethical principles relating to performance management. Topical issues in performance management, covering -Activity-Based Costing (ABC), Just-in-Time, Kaizen costing, target costing, lifecycle costing, backflush accounting, throughput accounting, advanced manufacturing techniques and balance scorecard.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

MKT211: **Principles of Marketing Management** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of marketing management, who are highly equipped with the basic skills needed to make positive contributions to the growth of any economic society in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Effective marketing management focuses on the shifting needs and preferences of consumers. Marketing management is the function within an organization dedicated to marketing research, brand awareness, assessing environmental threats, and leveraging new opportunities. This course is tailored for beginners to introduce them to the elements, concepts and techniques need for effective marketing management

The goal of the course is to expose the undergraduate Information Systems students marketing concepts. Thereby enabling the students to develop a better appreciation and understanding of the role of marketing in a business organization specifically, and in our society at large.

**Course Objectives**

The objectives of this course are to:

1. describe the various applications of the marketing concept.
2. evaluate the effects of the marketing concept on the firm, consumers, and society;
3. discuss market opportunities and threats as well as the strengths and weaknesses of a firm.
4. describe the strategic marketing management process; and
5. explain the application of the elements of the strategic marketing management process.

**Learning Outcomes**

At the end of this course, the student should be able to:

1. recognize various applications of the marketing concept;
2. evaluate the effects of the marketing concept on the firm, consumers, and society;
3. analyse market opportunities and threats as well as strengths and weaknesses for a firm;
4. describe the strategic marketing management process; and
5. apply the elements of the strategic marketing management process in practice.

**Course Contents**

This course involves a practical and managerial approach to marketing. It gives the student a comprehensive and innovative, managerial and practical introduction to marketing. The Principles of Marketing Management provides in-depth exposure to practical examples and applications about managerial decisions. These include the trade-off between the organization’s objectives and resources against needs and opportunities in the marketplace. Topics covered are: Marketing Management Process. Analyses of Market Opportunities. Selection of Target Markets. Development of Marketing Mix. Management of Marketing Effort. Total Quality Marketing. Customer Relationship Management; Competitive Marketing Strategies; Social marketing and Consumerism; Marketing Ethics, planning and control, Current Issues in Marketing Management.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

Centre for Entrepreneurial Development Studies

University-Wide Course

**COV-ENT411:** **Product Development and Commercialisation** (1 Unit Compulsory; LH: 0; PH: 45)

**Senate Approved Relevance**

Covenant University (CU) is fashioned towards producing graduates with sound knowledge and a broad understanding of the scope and contents of entrepreneurship. This course is a branded course targeted at producing the graduates that we envision. CU graduates would have the right professional attitudes, ethics and skills in entrepreneurship that would enable them to be creative in tackling business problems. The students will further be exposed to other branded programmes such as Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of CU graduates. It thus assists them to be very relevant in all areas of the business system and national economy, including handling the challenges of the changing business environment.

In accordance with the University’s vision of Raising a New Generation of Leaders, we endeavour to produce graduates that are job creators and not just potential employees. Apart from enhancing the commercialisation knowledge of the students, the graduates of Covenant University would also be simultaneously prepared to become corporate entrepreneurs.

**Overview**

This course is designed to expose the undergraduate students to product development activities such as achieving problem-solution fit and achieving product-market fit. This course examines the strategies and processes used by leading companies for successful new product development. It equips the students with the necessary skills and overarching knowledge in technology transfer and commercialisation processes. The course will further enlighten the students about the start-up laws as well as business formation and registration procedures.

The development and implementation of new products and services is a core business function for many organisations. The goal of this course is to develop a solid understanding of product and service development from a strategic, entrepreneurial and marketing perspective. This course builds on knowledge of design thinking and complements this knowledge by developing a deeper understanding of start-up laws and commercialization processes. Real-world examples will be presented and the students will be practically involved in the applications of these concepts and techniques.

**Objectives**

The specific objectives of the course are to:

1. explain what is meant by ‘running lean’ and expose students to various forms of lean methodologies;
2. discuss the nature of product research and explain how different types of product research can be conducted;
3. describe the processes involved in technology transfer and commercialisation;
4. describe the roles played by National Office for Technology Acquisition and Promotion (NOTAP) in patenting inventions; and
5. appreciate the commercialisation policy of the university and its applications.

**Learning Outcomes**

On completion of this course, the student should be able to:

1. explain the meaning of running lean and develop products that will pass the necessary innovative parameters such as problem-solution fit and product-market fit;
2. discuss the nature of product research and conduct different types of product research;
3. describe the practical steps involved in technology transfer and commercialisation;
4. describe, in specific term, the roles played by National Office for Technology Acquisition and Promotion (NOTAP) in patenting inventions; and
5. leverage on the commercialisation policy of the university for business support such as training, funding, market access as well as equity returns.

**Course Contents**

Introduction to running lean. Achieving problem-solution fit. Achieving product-market fit. Business model development. Technology transfer and commercialization process. Patents and design acts in Nigeria. Roles of National Office for Technology Acquisition and Promotion (NOTAP). Commercialisation policy in Covenant University. New product research. New product launch. Business formation and registration procedures. The Nigerian Start-up Act.

​**Minimum Academic Standards**

Business hub and viable commercialisation policy

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC411: **Self-Management Techniques** (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Self-Management Techniques is designed to teach students how to manage their greatest asset- themselves. People tend to develop the capacity to manage their jobs, families and even others without paying attention to creating a healthy personality. Given that the major hindrance to a purposeful living is embedded in individuals, this course aims to examine the various methods, skills and strategies necessary to manage self for destiny actualization.

The course will explore the need for timely actions in pursuing identified goals, the discipline required, considerations to have while making decisions, appropriate time management techniques to adopt, and going beyond self-confidence to God-confidence.

**Objectives**

The specific objectives of the course are to:

* + 1. define self–management;
    2. identify the importance of self-management to purposeful living;
    3. identify self-management skills, methods and strategies;
    4. highlight ways to manage procrastination;
    5. discuss how to make good decisions;
    6. explain how to manage stress;
    7. explain the process of self-evaluation; and
    8. apply Self-management skills, methods and strategies in their daily life.

**Learning Outcomes**

At the end of this course, the students should be able to:

* + 1. define self–management;
    2. identify five (5) importance of self-management to purposeful living;
    3. state at least three (3) self-management skills, methods and strategies;
    4. highlight six (6) ways to manage procrastination;
    5. discuss the process of making good decisions;
    6. explain four (4) ways to manage stress;
    7. vividly explain the process of self-evaluation; and
    8. apply Self-management skills, methods and strategies in their daily life.

**Course Contents**

Introductory lecture: Self-mangement techniques. Decision-making skills. Grace and determination for self-discipline. Time management. Goal setting and planning skills. The power of focus. Anti-procastination strategies. Self-evaluation strategies. God-confidence and self-confidence. Stress management. Safety measures and precautions. The body segment: Safety measures and precautions I. Safety measures and precautions II.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

**Covenant University, Ota**

African Leadership Development Centre

University-Wide Course

Diploma in Leadership Development

COV-DLD411: **Leadership Skills, Styles and Settings**  (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

The Diploma in Leadership Development (DLD) programme is designed to produce graduates with a well-grounded knowledge of the concepts of leadership and its application to the array of African and global leadership challenges. The programme offers the redefinition of leadership by emphasising that it is a function of the feat achieved in people’s fields that make them a reference point rather than the position they occupy. DLD is one of the custom-made courses at Covenant University that develop the unique capacity in students to emerge as graduates that go beyond identifying problems to solving them, go beyond the narratives of the blame game to offering expert and intellectual engagements, and go beyond recycling ideas to creating innovative alternatives that are efficient and effective. Consequently, this programme, offered across all the academic departments of the university, will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with sound mental reasoning to pursue and excel in postgraduate studies.

**Overview**

Leadership Skills, Styles and Settings is designed to expose students to the skills necessary for effective leadership. Leaders are unique in their approaches. The specific style that is adopted under specific circumstances can determine the degree of success or failure. Hence, the course teaches students various styles of leadership and how to identify the most appropriate one or combination.

The goal of the course is to introduce students to different settings of leadership and how each setting would require its appropriate skill and style. In this course, students will learn the critical skills required for effective leadership, including Conceptual Skills, People Skills, Communication Skills, Technological and Financial Skills. Students will also learn common leadership styles and settings.

**Objectives**

The specific objectives of the course are to:

1. identify specific leadership skills required for effectiveness;
2. discuss the characteristics of common leadership styles;
3. determine the appropriate style of leadership to adopt based on scenarios;
4. discuss common leadership settings;
5. explain how settings can influence leadership styles; and
6. apply leadership skills to human relations, communication, technology and finances.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. identify five (5) specific leadership skills required for effectiveness;
2. discuss seven (7) characteristics of common leadership styles;
3. apply the appropriate style of leadership to adopt based on scenarios;
4. discuss three (3) common leadership settings;
5. explain how settings can influence leadership styles; and
6. apply leadership skills to human relations, communication, technology and finances;

**Course Contents**

Introductory lecture: Leadership skills and styles. Leadership and communication skills. Digital literacy and leadership. Leadership and human relations. Financial intelligence and leadership effectiveness. Leadership effectiveness for career development. Styles of leadership I: Autocratic, laissez-faire, democratic and transactional, visionary, servant and transformational. Strategic leadership: Developing leadership strategies in the corporate world. Styles of leadership II: Team, strategic and cross-cultural. Entrepreneurial leaders: Leadership for global relevance. Business leadership: Building a global leadership brand.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-INS422: **Decision Support System** (2 Units Compulsory; LH: 30; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is designed to produce graduates with adequate knowledge and a broad understanding of the fundamental concepts of intelligent decision making, as well as graduates who are highly skilled in using various information systems tools, techniques, and approaches to solving real-life problems, in line with Covenant University's vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Decision support system is a branch of information systems that provides fundamental knowledge of decision-making process in an oragnisation and how to enhance decision making capability of decision makers.

The goal of the course is to expose the undergraduate information Systems students to fundamental concepts of decision making and decision support systems. The emphasis is laid on equipping the information systems students with the knowledge of decision-making styles and models of decision support systems for easy implementation of decision making processes to save time and cost.

**Course Objectives**

The objectives of the course are to:

1. explain the concept of decision support systems (DSS);
2. describe the concept of intelligent business decision making;
3. discuss how to design, develop and evaluate a DSS systems;
4. discuss various models of building DSS systems;
5. explain concept behind expert systems; and
6. analyze how information is used to solve problems.

**Learning Outcomes**

At the end of the course the students should be able to:

1. discuss the concept of decision support systems (DSS);
2. analyse intelligent business decision making;
3. design, develop and evaluate a DSS systems;
4. discuss various models of building DSS systems;
5. explain the concept of expert systems and how it is related to DSS; and
6. use information in solving real life problems.

**Course Contents**

History and development of decision support system (DSS). Basic concepts of DSS. DSS paradigm and architecture. Components of DSS. Classes of DSS. Decision support tools. Phases of decision-making process. DSS classifications. DSS hardware. Comparison of statistical decision-making methods. Cognitive process, brainstorming, bounded rationality, adaptive and structured DSS design, effectiveness and efficiency criteria. Groups: Collaborative and competitive, co-located and non-collocated groups, organizational learning, group decision support systems. DSS software identification. Optimization models. Satisfying models. Visualization. Fuzzy decision-making concepts. Neural network applications in decision making. Expert systems and artificial Intelligence. knowledge engineering. Data warehousing and data mining.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-INS424: **Knowledge Management** (3 Units Compulsory; LH: 45; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems, who are highly skilled in knowledge management in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Knowledge Management focuses on how knowledge is created, captured, represented, stored and reused so as to fully leverage the intellectual assets of a firm. The tools and techniques for knowledge acquisition, assessment, evaluation, management, organization and dissemination are applied to business situations.

The goal is to enable the students to apply knowledge management practices in the context of managing the design, development and operation of information systems.

**Course Objectives**

The objectives of the course are to:

1. describe the concepts behind knowledge management;
2. examine various information technologies used in knowledge management;
3. describe knowledge management life cycle;
4. describe knowledge management paradigm;
5. describe knowledge management models;
6. discuss the ethics in the management of knowledge; and
7. describe knowledge management approaches in various domains.

**Learning Outcomes**

At the end of this course, students should be able to:

1. describe the concepts behind knowledge management;
2. explain various information technologies used in knowledge management;
3. explain knowledge management lifecycle;
4. identify and explain the knowledge management paradigm;
5. explain knowledge management models;
6. explain the ethics in the management of knowledge; and
7. explain knowledge management approaches in various domains.

**Course Contents**

Introduction to knowledge management. Foundations of knowledge management, including cultural issues and technology applications. Organizational concepts and processes. Management aspects, and decision support systems. The evolution of knowledge management. From information management to knowledge management. Key challenges facing the evolution of knowledge management. Ethics for knowledge management. Organization and knowledge management. Knowledge management models. Knowledge management processes. Building the learning organization. Knowledge markets. Cooperation among distributed technical specialists. Tacit knowledge and quality assurance. Telecommunications and networks in knowledge management. Internet search engines and knowledge management. Information technology in support of knowledge management. Knowledge management and vocabulary control. Information mapping in information retrieval. Information coding in the internet environment. Components of a knowledge strategy. Case studies-from library to knowledge center. Knowledge management in the health sciences. Knowledge management in developing countries. Knowledge management tools. Knowledge management failure. Knowledge management career and skills.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

Centre for Entrepreneurial Development Studies

University Wide Course for

All Programmes

**COV-ENT421:** **Start-up Growth Strategy** (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

Covenant University (CU) is fashioned towards producing graduates with sound knowledge and a broad understanding of the scope and contents of entrepreneurship. This course is a branded course targeted at producing the graduates that we envision. CU graduates would have the right professional attitudes, ethics and skills in entrepreneurship that would enable them to be creative in tackling business problems. The students will further be exposed to other branded programmes such as Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of CU graduates. It thus assists them to be very relevant in all areas of the business system and national economy, including handling the challenges of the changing business environment.

In accordance with the University’s vision of Raising a New Generation of Leaders, the University is expected to provide mentorship and business support to all the businesses formed by the students. As part of the commitment towards such business support, the students shall be trained on how to avoid business failure and manage the strategic issues involved in growing their businesses.

**Overview**

The course provides the students with the tools they need to analyse and evaluate their existing performance. The course will also recommend specific actions that organizations can take to grow their value and avoid common growth pitfalls. In this course, they will learn to determine how best to build value, whether by scaling existing markets, entering established markets or creating new markets through innovation and acquisitions.

This course will expose the students to various case studies of companies that have endured and prospered for centuries by identifying new growth opportunities, adapting, and innovating. The course will also inspire the students to accelerate the ability of their start-ups to acquire and cultivate knowledge that is critical to its future success. The students will also discover why managerial creativity is increasingly important, and how they can leverage growth strategies to help achieve their objectives.

**Objectives**

The specific objectives of the course are to:

1. demonstrate what is meant by growth strategy by evaluating various growth strategies;
2. demonstrate how vision and mission should be crafted appropriately;
3. analyse different business environment through the use of relevant case studies;
4. discuss the nature of relationship between strategy and structure;
5. analyse strategic issues in managing Innovation; and
6. demonstrate how to develop a business strategy and an action plan for implementation.

**Learning Outcomes**

On completion of this course, the student should be able to:

1. illustrate what is meant by growth strategy by implementing appropriate growth strategy suitable for a particular business situation;
2. craft appropriate vision and mission containing the required basic elements;
3. carry out environmental analysis and provide appropriate recommendations based on the outcomes of the analysis;
4. apply the symbiotic relationship between strategy and structure and recommend strategies to be adopted based on a given business structure or vice versa;
5. demonstrate different ways of managing strategic issues relating to new products or innovation; and
6. develop a business strategy and an action plan for implementation based on the peculiar nature of any given firm.

**Course Contents**

Meaning of growth strategies. Mission and vision statement. Environmental analysis. Strategy and structure. Types of growth strategies. Stakeholder analysis. Competitive advantage. Strategic issues in managing technology and innovation. Implementation and monitoring of strategic plans

**Minimum Academic Standard**

Business hub/Accelerators lab with business simulation software

Covenant University, Ota

African Leadership Development Centre

University-Wide Course

Total Man Concept

COV-TMC421: **Issues in Marriage and Family Life I** (1 Unit Compulsory; LH: 15)

**Senate Approved Relevance**

The Total Man Concept (TMC) programme is designed to produce spiritually sound graduates with a crystal understanding of the triune nature of man- spirit, soul and body- and how to develop each element of that nature to maturity. The programme is based on Biblical principles and explores man's origin, God’s purpose for creating man, and how to achieve that purpose. The term “man” in this course does not refer to a specific gender; instead, it is a general representation of humankind. TMC is one of the custom-made courses at Covenant University that develops the spiritual, soulish and physical capacity in students to emerge as well-rounded graduates that are ready to face the multidimensional challenges of life. Critical to the vision that birthed Covenant University is the need to raise a new generation of leaders who will constitute the force and agent of change that is critically needed in Nigeria, Africa and the world. The new generation of leaders requires more than academic degrees. They must be equipped with divine resources, mental excellence and physical fitness.

Consequently, this programme is offered across all the university's academic departments. It will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with an all-around capacity to pursue and excel in postgraduate studies.

**Overview**

Issues in Marriage and Family has as its primary objective to introduce students to the context of marriage and family life with a view to understanding the place of preparation in marriage and issues that are vital to making marriage work specifically from a Christian perspective. The course aims to provide a 3600 view to understanding marriage and family in order to open up students in the graduating class to the expectations in marriage and family life.

Issues with respect to the current context of marriage and challenges faced in the 21st century, nationally and globally, will be addressed. The course will present the scriptural and Biblical dimensions for marriage and the foundational role that marriage and families play in society.

**Objectives**

The specific objectives of the course are to:

1. define a Christian marriage;
2. identify steps in preparing for marriage;
3. distinguish between wedding and marriage;
4. discuss types of communication in marriage;
5. highlight the family responsibilities of the couple;
6. identify ways to manage family finance effectively; and
7. explain the process of effective parenting.

**Learning Outcomes**

At the end of this course, the students should be able to:

* + 1. define a Christian marriage;
    2. identify at least seven (7) steps in preparing for marriage;
    3. distinguish between wedding and marriage;
    4. discuss the three (3) types of communication in marriage;
    5. highlight at least ten (10) family responsibilities of the couple;
    6. identify at least eight (8) ways to manage family finance effectively; and
    7. explain with vivid illustration the process of effective parenting.

**Course Contents**

Introduction to the issues in marriage and family life. Preparing for marriage: Fundamental issues. The Christian marriage. The covenant marital intimacy. Effective communication in marriage. Understanding family responsibilities. Family and spiritual warfare. Handling family finances. Parenting. Roles of family in national and global development

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

**Covenant University, Ota**

African Leadership Development Centre

University-Wide Course

Diploma in Leadership Development

COV-DLD421: **Models and Challenges of Leadership** (1 Unit Compulsory; PH: 45)

**Senate Approved Relevance**

The Diploma in Leadership Development (DLD) programme is designed to produce graduates with a well-grounded knowledge of the concepts of leadership and its application to the array of African and global leadership challenges. The programme offers the redefinition of leadership by emphasising that it is a function of the feat achieved in people’s fields that make them a reference point rather than the position they occupy. DLD is one of the custom-made courses at Covenant University that develop the unique capacity in students to emerge as graduates that go beyond identifying problems to solving them, go beyond the narratives of the blame game to offering expert and intellectual engagements, and go beyond recycling ideas to creating innovative alternatives that are efficient and effective. Consequently, this programme, offered across all the academic departments of the university, will produce graduates poised to rise to the top of any organisation as employees or establish thriving businesses. Graduates will also be equipped with sound mental reasoning to pursue and excel in postgraduate studies.

**Overview**

Models and Challenges of Leadership presents students with positive and negative leadership example from the Bible and the society. In this course, students will learn from the successes and mistakes of biblical, historical and contemporary leaders in diverse leadership settings. They will also be exposed to significant leadership challenges such as change management, corruption, ethnicity, conflict management and governance.

The aim of the course is to enlighten the students on the need to learn from other people’s experiences in their leadership journey. They will also be taught that managing people comes with significant challenges. Therefore, they must learn how to avoid self-doubt when faced with such challenges. The should also develop the essential people skills to excel in leadership.

**Objectives**

The specific objectives of the course are to:

1. define leadership models;
2. identify the types of leadership models;
3. discuss lessons learnt from the success and mistakes of biblical
4. discuss lessons learnt from historical and contemporary leaders; and
5. identify and discuss the significant challenges of leadership.

**Learning Outcomes**

At the end of this course, the students should be able to:

1. define leadership models;
2. identify at least five (5) types of leadership models;
3. discuss at least seven (7) lessons learnt from the success and mistakes of biblical
4. discuss at least six (6) lessons learnt from historical and contemporary leaders; and
5. identify and discuss five (5) significant challenges of leadership.

**Course Contents**

Introduction to leadership models and challenges. Leadership challenge of conflict management. Biblical models of leadership. Learning process and effective leadership. Leadership challenge of corruption. Dynamic leadership: Anticipating, managing and leading change. Leadership challenge of maintenance culture. Leadership challenge of time management. Leadership challenge of creativity and innovation. Leadership, business intelligence and performance management. Leadership challenge of ethnocentrism.

**Minimum Academic Standards**

Dedicated audiovisual and multimedia facility.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

COV-INS426: **Business Intelligence** (3 Units Elective; LH: 45; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems, who are highly skilled in Business intelligence approaches to solving real-life problem in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Business Intelligence is an interdisciplinary branch of computer science and Business management that uses sophisticated analytics methods for analyzing business data. The objective function of Business intelligence is to maximize the use of available business data for intelligent decision making.

The goal of this course is to improve students' knowledge and understanding of analytics techniques that support contemporary business needs. Developing skills in data extraction, manipulation, and visual communication, as well as a critical grasp of management science theories and methods. Basically, examining the role these solutions play in solving real-world business problems.

**Course Objectives**

The objectives of the course are to:

1. explain the concepts and components of business intelligence (BI);
2. describe the technologies that make up BI (data warehousing);
3. examine the role of BI in an organization;
4. describe the technological architecture for BI systems; and
5. describe the implementation of a BI system and solutions.

**Learning Outcomes**

Upon completion of this course, the student should be able to:

1. explain and analyse the concepts and components of business intelligence (BI);
2. explain the technologies that make up BI (data warehousing);
3. state five roles of BI in an organization;
4. explain the technological architecture for BI systems; and
5. implement a BI system and solutions.

**Course Contents**

Introduction to business intelligence (BI) basics. Business intelligence use cases. Foundations and technologies for decision making. Business intelligence data and information modelling. Modelling in business intelligence. Data management approaches. Data provisioning. Data description and visualization. Data mining for cross-sectional data. Regression models. Classification models. Unsupervised learning. Data mining for temporal data. Process analysis. Process performance management and warehousing. Process mining. Analysis of multiple business perspectives. Social network analysis. Decision point analysis. Text mining. Knowledge management in databases and their applications in solving real world business and operation problems. Social media, big data, and text mining. Social network analysis and its application to market strategies development and analysis. Social network data: types of networks, boundary specifications. Descriptive analytics - data warehousing and business reporting. Business intelligence tools. Data governance. Meta data development and applications. Expert systems. BI future trends.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.

Covenant University, Ota

College of Science and Technology

Department of Computer and Information Sciences

B.Sc. Information Systems

DTS204:  **Statistical Computing Inference and Modelling** (3 Units Elective; LH: 45; PH: 0)

**Senate Approved Relevance**

The Information Systems programme is fashioned towards producing graduates with adequate knowledge and broad understanding of the basic concepts of Information Systems, who are highly skilled in Statistical Computing Inference and Modelling to solving real-life problem in accordance with the Covenant University’s vision of Raising a New Generation of Leaders. The programme is further spiced with such Covenant University courses as Entrepreneurial Development Studies (EDS), Total Man Concept (TMC) and Leadership Development (DLD) which together would enhance the productive capacity of the Information Systems graduates and thus assists them to be very relevant in the production processes in addressing real life management problems in different domains like Business, Medical, Educational, Agriculture, etc. In essence, we endeavour to produce job creators’ not just potential employees. The graduates would also be simultaneously prepared for postgraduate scholastic research studies in Information Systems and allied disciplines.

**Course Overview**

Statistical Computing Inference and Modelling is an interdisciplinary branch of computer science and Statistics that uses sophisticated statistical tools and Computer programming language for modelling data and make adequate inference. The objective function of statistical computing inference and modelling is to maximize the use of available data in any domain for intelligent decision making.

The goal of this course is to improve students' knowledge and understanding of statistical computing method and tool that support contemporary business needs. Basically, examining the role these inferences play in solving real-world business problems.

**Course Objectives**

The objectives of the course are to:

1. explain statistical assumptions, models and results;
2. describe how to make inference on statistical outcomes, and real-world implications and how these outcomes are factored into decision-making processes;
3. demonstrate the various considerations that are applied both for communicating statistical solutions to real problems;
4. describe how to apply a broad range of statistical tools and packages; and
5. demonstrate logical, meaningful skills that bothers not just on the relevance of the data that informed the statistical outcomes, but also on the real-world implications of how these outcomes are factored into decision-making processes.

**Learning Outcomes**

At the end of the course, the students should be able to:

1. make conclusions based on statistical assumptions, models and results;
2. make inference on statistical outcomes, and real-world implications and how these outcomes are factored into decision-making processes;
3. demonstrate the various considerations that are applied both for communicating statistical solutions to real problems;
4. make conclusions based on statistical models and results by applying a broad range of statistical tools and packages; and
5. demonstrate logical, meaningful skills that bothers not just on the relevance of the data that informed the statistical outcomes, but also on the real-world implications of how these outcomes are factored into decision-making processes.

**Course Contents**

Population and samples. Asymptotics. Statistical models and methodologies. Random sampling distributions. Elementary time series analysis. Index numbers. Demographic measures. Estimation (point and interval) and tests of hypotheses concerning population mean and proportion (one and two sample cases). Regression and correlation. Programming in Python computer language. Computation of mean, variance and correlation. Sorting and ranking of data. Data step processing. Preparing data for analysis. Evaluating quantitative data. Sample size estimation. Basic statistical computing in regression analysis and the analysis of designed experiments. Introduction to Monte Carlo methods. Use of statistical packages like SPSS, SAS, Minitab, GENSTAT, EPI-INFO, SYSTAT.

**Lab Work:** Practical experiments on statistical models and methodologies. Practical exercises on random sampling distribution methods. Practicals on test of hypothesis, population, mean, proportion, regression and correlation analysis. Exercise on how to sort and data from different data set. Use of SPSS for data analysis and computation.

**Minimum Academic Standards**

Smartboard equipped with software for adequate lecture delivery.