

Name of Course/Module	Computer Fundamentals
Course Code	CS1022
Rationale	This is a core module that provides the necessary foundation to complete the programme. This module provides a broad highlight of the foundations of the computer, its parts and of computing concepts
Credit Value	3
Prerequisite (if any)	None
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Identify the various computer hardware components, input/output and storage devices, which meet the information needs of a variety of users, extending from the small business system to the multinational corporation and explain their functions Recognise the data types and data flows within a range of organizations, and the related systems of data capture, data quality control and data storage devices. Describe the logical, physical and communications features of common information processing systems and associated hardware. Identify the types of software used in current computer systems. Explain the staffing, operations, development and control activities in a modern computing environment and the social and economic implications of the use of computers. Configure and set up basic components of computer hardware.
Assessment	<p>Coursework 60%</p> <p>Examination 40%</p> <p>TOTAL 100%</p>
References	<ol style="list-style-type: none"> Shelly, G (2010), Discovering Computers 2011: Complete, Course Technology, 1st Ed Joyce, J (2007), 2007 Microsoft Office System Plain & Simple, Microsoft Press, 1st Ed White, R (2007), How Computers Work, Que. 9th Ed

Name of Course/Module	Fundamentals of Programming	
Course Code	CS1044	
Rationale	This is a core module that provides the necessary foundation to complete the programme. This module aims to provide and equip students with necessary structured approaches to problem solving to inculcate good programming skills in students.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Utilize the SDLC for problem solving Draw a flowchart; write an algorithm and pseudocode to present the problem design for a problem Assign the identifiers with meaningful and good name Declare a proper data types for a program Resolve syntax errors Solve problems using C syntax Write a program using if else, switch case, while loop, do while loop and for loop. Decide on usage of appropriate loop for a program Write functions to include the use of function parameter, return value and function prototype Write a recursion program. Write an array program and store record into an array. Store record into a file to include simple file manipulation function such as search record, delete record, modify record and update records. Describe the systems view of project management and how it applies to information technology projects. Relate to the importance of project schedules and good project time management 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> Hanly, J (2009), <i>Problem Solving and Program Design in C</i>, Addison Wesley, 6th Ed ACA Guide Adobe Flash Deitel, P (2009), <i>C: How to Program</i>, Prentice Hall, 6th Ed King, K (2009), <i>C Programming: A Modern Approach</i>, W. W. Norton & Company, 2nd Ed Robertson, L (2006), <i>Simple Program Desing: A Step-by-</i> 	

Step Approach, Course Technology, 5th Ed

5. Vine, M (2007), *C Programming For The Absolute Beginner*, Course Technology PTR, 2nd Ed
6. Schwalbe, K. (2007) *Information Technology Project Management*, Thomson, 5th Ed
7. Grover, C (2010), *Flash CS5: The Missing Manual*, Progue Press, 1st Ed

Name of Course/Module	Internet and Web Technologies	
Course Code	CS1053	
Rationale	This is a core module that provides the necessary foundation to complete the programme. It aims to exposes students to a broad-range of Internet-related concerns and introduces students to web development using various design and development technologies and methods.	
Credit Value	3	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1. Discuss about the background and the development of the Internet and WWW 2. Find, use and evaluate information resources on the Internet 3. Discuss security issues of the Internet and apply safety precautions in accessing the Internet 4. Understand the web portal 5. Design and document the storyboard for a web page 6. Use HTML / XHTML, JavaScript, and CSS for web design and development 	
Assessment	Final Examination	50%
	Coursework	50%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Carey, P. (2010), New Perspectives on HTML, XHTML, and Dynamic HTML, Comprehensive, ISBN: 1423925432, 4th Edition 2. Meyer, E. A. (2006) CSS: The Definitive Guide, 3rd Ed. 3. Goodman, D. (2007), JavaScript Bible, 6th Ed. 4. Begleiter, M. (2010), From Word to Image: Storyboarding and the Filmmaking Process, 2nd Ed. 	

Name of Course/Module	Computing Mathematics	
Course Code	CS1033	
Rationale	This is a core module that provides the necessary foundation to complete the programme. This module enables students to identify and use appropriate elementary numerical methods related to computer processing. It introduces students to the rationale and process, and the range of computing Mathematics concepts that are applicable in a variety of software / system / data modelling approaches.	
Credit Value	3	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> a. Describe and use the notation of Number systems, Binary arithmetic, Algebra, set theory and logic, and then apply to model structures. b. Use basic set operations. c. Apply the theory and application of further discrete mathematics to model development and application 	
Assessment	Mid Term Examination 20% Final Examination 50% Coursework 30% TOTAL 100%	
References	<ol style="list-style-type: none"> 1. Thomasson, J. and Pesut, R., (2007) Experiencing Introductory and Intermediate Algebra Through Functions, 3rd Ed, Prentice hall 2. Cottrell, S (2008) The Study Skills Handbook, London: Palgrave, 2nd Ed 3. Richard Johnsonbaugh, (2005), Discrete Mathematics, 6th Ed, Prentice Hall, 4. S Lipschutz, (1982), Schaum's Outline of Essential Computer Mathematics, McGraw Hill. 5. Wilton, (1993), Mathematics for Computer Science, NCC Publications 6. B Patterson, (1993), Computer-Related Mathematics, NCC Blackwell 7. Neville Dean(1996), Essence of Discrete Mathematics, Prentice Hall PTR. 	

Name of Course/Module	User Interface Design	
Course Code	CS1064	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module aims to enable students to apply human-machine interaction in system development. Students will be able to develop interactive multimedia programs using concepts and tools introduced within the course, and to highlight the importance of the human element in the system development.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1. Creatively design an interface by applying the HCI factors. 2. Develop an interactive program that complies with the industry standard. 3. Justify the choice of an effective interaction concept for a product. 4. Program in direct manipulation system and Virtual Environments for Home Automation 5. Use commands and natural language in the prototype development. 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Lauesen, S (2006), User Interface Design : A Software Engineering Perspective, Addison Wesley Longman, 1st Ed 2. Galitz, W (2007), The Essential Guide to User Interface Design, Wiley, 3rd Ed 3. Pugh, K (2006), Interface Oriented Design: With Patterns, Pragmatic Bookshelf, 1st Ed 4. Crumlish, C (2009), Designing Social Interfaces: Principles, Patterns and Practice For Improving The User Experience , Yahoo Press, 1st Ed 5. Johnson, J (2010), Designing With The Mind In Mind: Simple Guide To Understanding User Interface Design Rules, Morgan Kaufmann 	

Name of Course/Module	Database Systems						
Course Code	CS1104						
Rationale	This is a core module that provides essential knowledge on database planning, designing and implementation, as database is often required in most applications from standalone applications to web-based and multimedia platform. With knowledge of database systems, student would be able to develop real life applications that automate various transaction processing and decision making systems requiring data stored in a database in enormous quantity.						
Credit Value	4						
Prerequisite (if any)	None						
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Define, explain, describe and discuss various essential concepts of database systems, management and the pros and cons of database systems in different environments. Model real life problems and create Entity Relationship Diagram (ERD) prior to database design and implementation. Evaluate and identify redundancies in database by using Normalization technique to produce relations for databases. Create and manipulate relations in databases by using Database Definition Language (DDL) and Database Manipulation Language (DML). 						
Assessment	<table> <tr> <td>Final Examination</td><td>40%</td></tr> <tr> <td>Coursework</td><td>60%</td></tr> <tr> <td>TOTAL</td><td>100%</td></tr> </table>	Final Examination	40%	Coursework	60%	TOTAL	100%
Final Examination	40%						
Coursework	60%						
TOTAL	100%						
References	<ol style="list-style-type: none"> Connolly, T (2009) Database Systems A Practical Approach to Design, Implementation, and Management, Addison Wesley, 5th Ed Carlos, C (2009) Database Systems: Design, Implementation and Management, Course Technology, 9th Ed Loney, K (2008) Oracle 11g The Complete Reference, McGraw Hill, 1st Ed Date, C (2009) SQL and Relational Theory: How To Write Accurate SQL Code, O'Reilly Media, 1st Ed David, M (2009), Database Concepts, Prentice Hall, 4th Ed 						

Name of Course/Module	Object Oriented Systems Analysis and Design	
Course Code	CS2134	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module aims to introduce students to the approaches and techniques for modelling of information systems, in terms of structure and dynamic aspects, for an object-oriented development, and to provide students with techniques for analysis. It also introduces students to the need for consistency between models, and the need for a standard professional approach to the development of information systems.	
Credit Value	4	
Prerequisite (if any)	CS1022 Computer Fundamentals	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Understand the phases of Unified Modeling Language (UML) Describe the UML approach for modelling of information systems for an object-oriented development Draw use case diagrams to capture the requirements of a system Draw class and collaboration diagrams for a system as part of its design Synchronise information between the different models in a system Understand the need for a standard professional approach to the development of information systems 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> Bennett, S., (2005), <i>Object-Oriented Systems Analysis and Design using UML</i>, McGraw-Hill, 5th Ed Bruegge (2009), <i>Object-Oriented Software Engineering</i>, Prentice Hall, 3rd Ed Hoffer, J (2007), <i>Modern Systems Analysis And Design</i>, Prentice Hall, 5th Ed Maciaszek, L (2005), <i>Requirements Analysis and System Design: Developing Information Systems with UML</i>, Addison Wesley 	

Name of Course/Module	Multimedia Authoring	
Course Code	CS1074	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module exposes students to development of 2D animation with Flash technology.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Describe of the lifecycle of multimedia authoring (researching and sourcing, developing and storyboarding and evaluating the finished package) Explain the importance of legal considerations such as copyrights Produce a small scale multimedia presentation package using the basic concepts and theories of multimedia authoring 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Adobe Certified Associate Rich Media Communication Flash study pack 2. ACA Guide Adobe Flash 3. Hartman, A (2010), Exploring Adobe Flash CS5, Cengage Learning. 4. Shuman, J (2010), Adobe Flash CS5 Revealed, Cengage Learning, Intl Ed 5. Romer, R (2010), New Perspectives on Adobe Flash Professional CS5 Comprehensive, Intl Edition, 1st Ed 6. Grover, C (2010), Flash CS5: The Missing Manual, Progue Press, 1st Ed 	

Name of Course/Module	VB.NET Programming	
Course Code	CS1094	
Rationale	This is a core module that provides essential knowledge on design and development of Graphical User Interface (GUI) applications and the interface to database via VB.Net framework. This module enables students to produce applications which run on windows platform, as well as to appreciate the user friendliness and convenience of windows application software.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Define, explain, describe and discuss various GUI-based application development environment and requirements. Design an interactive GUI application using VB.Net. Develop GUI-based applications and interface to databases. Create and manipulate a database via VB.Net applications. Create simple web-based projects using VB.Net scripting. 	
Assessment	Final Examination	50%
	Coursework	50%
	TOTAL	100%
References	<ol style="list-style-type: none"> Halvorson, M (2010) <i>Microsoft Visual Basic 2010 Step by Step (Step By Step)</i>, Microsoft Press, 1st Ed Sole, A (2010) <i>Visual Basic 2010 Unleashed</i>, Sams, 1st Ed Foxall, J (2010) <i>Sams Teach Yourself Visual Basic 2010 in 24 Hours Complete Starter Kit</i>, Sams, 1st Ed Schneider, D (2010) <i>Introduction to Programming Using Visual Basic 2010</i>, Prentice Hall, 8th Ed <p>Deitel, P(2010) <i>Visual Basic 2010 How to Program</i>, Prentice Hall, 5th Ed</p>	

Name of Course/Module	Computer Security	
Course Code	CS1124	
Rationale	This is a core module that provides the necessary foundation to complete the programme. This module equips students with essential knowledge on different kind of computing environments, weaknesses and threats to expose assets. It particular focuses on general programs, operating systems, database management systems and multi computer networks.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Define and discuss various types of computer security threats such as malware and viruses, and their impacts on a computer system. Explain the encryption and decryption techniques available. Demonstrate the usage of encryption and decryption techniques to promote security in a computer system effectively. Discuss the various intrusion detection methods and suggest a proper security plan. 	
Assessment	Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> Goodrich, M (2010) Introduction to Computer Security, Addison Wesley, 1st Ed Purpura, P (2010) Security: An Introduction, CRC Press, 1st Ed Satllings, W (2007) Computer Security: Principles and Practices, Prentice Hall, 1st Ed Jacobson, D (2008) Introduction to Network Security, Chapman and Hall, 1st Ed <p>Fischer, R (2008) Introduction to Security, Butterworth-Heinemann, 8th Ed</p>	

Name of Course/Module	Fundamentals of Object Oriented Programming						
Course Code	CS2164						
Rationale	<p>This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module introduces the basic object-oriented programming concepts and describes their implementation using the Java programming language.</p> <p>Among other topics, it covers the constructs available and the general syntax required for each construct; the basic object-oriented approach to data association using aggregate data types; expressions, including operators and the syntax of Java program control; array in Java program; classes, subclasses, method overloading and overriding; and static member, final variables, abstract classes and interfaces.</p>						
Credit Value	4						
Prerequisite (if any)	CS2134 Object Oriented Systems Analysis and Design						
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Write an object-oriented program using Java. Include the sequence, selection (if..else & switch..case) and loops (for, do..while, while) in a program. Use of the primitive data types and class types. Use of the operators, expression in a Java program. Write an array program. Write a class, inheritance, method with parameters, method overloading and method overriding program Write a Java program with static member, final variables, abstract classes and interfaces. Produce a simple Java application 						
Assessment	<table> <tr> <td>Final Examination</td><td>40%</td></tr> <tr> <td>Coursework</td><td>60%</td></tr> <tr> <td>TOTAL</td><td>100%</td></tr> </table>	Final Examination	40%	Coursework	60%	TOTAL	100%
Final Examination	40%						
Coursework	60%						
TOTAL	100%						
References	<ol style="list-style-type: none"> Liang Y. D. (2008) <i>Introduction to Java Programming, Comprehensive</i>, Prentice Hall, 7th Ed Deitel, P (2009) <i>Java How to Program: Early Objects Version</i>, Prentice Hall, 5th Ed Sarang, P (2010) <i>Java 7 Programming</i>, Mc-Graw-Hill, 1st Ed Schildt, H (2010), <i>Java 7 The Complete Reference</i>, Mc-Graw-Hill, 8th Ed 						

5. Malik, S (2008), *Java Programming: From Problem Analysis To Program Design*, Course Technology, 4th Ed

Name of Course/Module	Personal Development Planning	
Course Code	CS2214	
Rationale	<p>The objective of this module is to introduce the students to a structured and supported process whereby students can plan, monitor and reflect on their academic work and extracurricular activities. The process underpins use of progress files, which comprise institutional records of academic achievement (transcript) and personal records of learning and achievements. The primary objective for personal development planning is to improve the capacity of individuals to understand what and how they are learning and to review, plan and take responsibility for their learning. This enables students to articulate their personal goals and evaluate progress towards their achievement</p>	
Credit Value	3	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students will be able to:</p> <ol style="list-style-type: none"> 1. Recognize the nature of learning strategies and widen their repertoire of study skills 2. Define and plan simple personal goals and objectives and devise basic means of achieving these 3. Recognize and apply the basic skills required for working and learning, both individually and co-operatively and developing sensitivity to varied social backgrounds in terms of culture, ethnicity and sexual identity. 	
Assessment	<p>Individual Portfolio 40%</p> <p>Assignment 40%</p> <p>Activities <u>20%</u></p> <p>Total 100%</p>	
References	<ol style="list-style-type: none"> 1. Cottrell, S. (2003). <i>The Study Skills Handbook</i> (2nd ed.). London: Palgrave 2. Stott, R., Young, T. & Bryan, C. (2001). <i>Speaking Your Mind: Oral Presentation and Seminar Skills</i>. Harlow: Longman 3. Wood, R. C. (2005). <i>IMI Core Academic Skills Handbook</i>. Luzern: IMI 4. http://www.ltsn.ac.uk/home.asp (UK Learning and Teaching Support Network) 	

Name of Course/Module	Java Programming	
Course Code	CS2204	
Rationale	This is a core module that provides the necessary foundation to complete the programme. This module provides and equips students with in-depth knowledge of Java technology.	
Credit Value	4	
Prerequisite (if any)	CS2164 Fundamentals of Object Oriented Programming	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> a. Write a text-based application. b. Build a GUI with events handling application c. Write a threading and an IO program d. Apply technology of a client and server to Java program e. Discuss on the development of mobile applications on the Java(TM) 2 Platform, Micro Edition (J2ME(TM) platform) f. Implement data structures, such as lists, stacks, queues and trees. <p>Implement algorithms to process the data structures including searching, sorting and tree traversals</p>	
Assessment	Final Examination 40% Coursework 60% TOTAL 100%	
References	<ol style="list-style-type: none"> 1. Liang Y. D. (2008) <i>Introduction to Java Programming, Comprehensive</i>, Prentice Hall, 7th Ed 2. Deitel, P (2009) <i>Java How to Program: Early Objects Version</i>, Prentice Hall, 5th Ed 3. Sarang, P (2010) <i>Java 7 Programming</i>, Mc-Graw-Hill, 1st Ed 4. Schildt, H (2010), <i>Java 7 The Complete Reference</i>, Mc-Graw-Hill, 8th Ed 5. Malik, S (2008), <i>Java Programming: From Problem Analysis To Program Design</i>, Course Technology, 4th Ed 	

Name of Course/Module	Networking and Operating System	
Course Code	CS2314	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module provides students a foundation in data communications, protocols and internetworking, supplemented with current networking technologies together with the overview of the fundamental concepts underlying operating systems, and their application to a variety of systems.	
Credit Value	4	
Prerequisite (if any)	CS1022 Computer Fundamentals	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Describe the fundamentals and workings of data communications & computer networks and various communication protocols. Implement network configuration and transmission for common networks. Understand and explain how the Internet works. Explain the fundamental concepts underlying operating systems, and their application to a variety of computer systems. Outline the range and nature of OS services, and memory management in a multiprogramming system. Illustrate the role of operating systems as an interface between hardware and application software that provides for efficient use of computing resources. Apply LINUX shell commands to manipulate, navigate, and organizing a file system. Write shell scripts to demonstrate shell programming concepts such as decisions, loops, and reporting. 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> Stallings, W., (2009) <i>Business Data Communications</i>, Prentice Hall, 6th Ed Silberschatz, A (2008) <i>Operating System Concepts</i>, Wiley, 8th Ed 	

Name of Course/Module	Cloud Computing						
Course Code	CS2324						
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module equips students with the state-of-the-art in architectures, software, algorithms and protocols related to cloud computing.						
Credit Value	4						
Prerequisite (if any)	CS2164 Fundamentals of Object Oriented Programming						
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Discuss the basics of the emerging cloud computing paradigm Implement algorithms in the cloud Explain the cloud computing architecture and framework Identify the services it provides to write simple application programs using a public or private cloud infrastructure to install cloud software and run a cloud familiarize in using Hadoop (HDFS). familiar in using AJAX (asynchronous JavaScript and XML) 						
Assessment	<table> <tr> <td>Final Examination</td><td>40%</td></tr> <tr> <td>Coursework</td><td>60%</td></tr> <tr> <td>TOTAL</td><td>100%</td></tr> </table>	Final Examination	40%	Coursework	60%	TOTAL	100%
Final Examination	40%						
Coursework	60%						
TOTAL	100%						
References	<ol style="list-style-type: none"> 1. Miller, M., (2009), <i>Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online</i>, Que Publishing. 2. White, T., (2010), <i>Hadoop: The Definitive Guide</i>, O'Reilly Media, 2nd Ed. 3. Venner, J., (2009), <i>Pro Hadoop</i>, A Press. 4. Josyula, V., Orr, M., (2012), <i>Cloud Computing: Automating the Virtualized Data Center</i>, Cisco Press. 5. Linthicum, D. S., (2010), <i>Cloud Computing and SOA Convergence in Your Enterprise: A Step-By-Step Guide</i>, Addison-Wesley Professional. 						

Name of Course/Module	Mobile Technology	
Course Code	CS2344	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module expose students to mobile Technology from the perspectives of programming and networking technologies as well as to introduce students to wireless application development, and to enhance students logic and programming skills.	
Credit Value	4	
Prerequisite (if any)	CS2204 Java Programming	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> a. Discuss the J2ME platform architecture, the role of configurations and profiles, game binary runtime environment for wireless (BREW), and the J2ME toolkit. b. Create and implement event-driven user interfaces using high-level and low-level application programming interface (API). c. Build mobile applications which incorporate enhanced multimedia, that run on J2ME emulator and physical devices such as cell phone. 	
Assessment	Final Examination	40%
	Coursework	60%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Morrison, M., (2005), <i>Beginning Mobile Phone Game Programming</i>, Sams Publishing, 1st Ed. 2. Developing Mobile Phone Applications with J2ME Technology (DTJ-365) Course Materials – Sun Educational Services 3. Knudsen, J., Li, S., (2005), <i>Beginning J2ME: From Novice to Professional</i>, A Press, A Press, 3rd Ed. 4. Grayson, M., Shatzkamer, K., Wirenga, K., (2011), <i>Building the Mobile Internet</i>, Cisco Press, 1st Ed. 5. Grayson, M., Shatzkamer, K., Wainner, S., (2009), <i>IP Design for Mobile Networks</i>, Cisco Press, 1st Ed. 	

Name of Course/Module	System Administration and Management	
Course Code	CS2354	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module equips students with the necessary knowledge to broaden student's knowledge-base and hands-on skills to perform system administration tasks.	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> a. manage user accounts b. maintain system security c. configure new devices d. install and partition disk drives e. manage file systems f. configure and schedule system-related jobs g. maintain print services, install the operating system h. administer software packages and patches i. perform backup and recovery operations j. solve user-related problems 	
Assessment	Final Examination 40% Coursework 60% TOTAL 100%	
References	<ol style="list-style-type: none"> 1. Sobell, M. G., (2010), <i>Practical Guide to FEDORA and Red Hat Enterprise Linux</i>, A, Prentice Hall, 5th Ed. 2. Gift, N., Jones, J. M., (2008), <i>Python for Unix and Linux System Administration</i>, O'Reilly Media. 3. Turnbull, J., Lieverdink, P., Matotek, D., (2009), <i>Pro Linux System Administration</i>, A Press. 4. Solaris System Engineers, (2010), <i>Solaris 10 System Administration Essentials</i>, Prentice Hall. <p>Kaczmarek, S., Microsoft System Center Team, (2008), <i>Microsoft ® System Center Configuration Manager 2007 Administrators Companion</i>, Microsoft Press</p>	

Name of Course/Module	Technopreneurship	
Course Code	CS2154	
Rationale	This is a college compulsory module that provides the necessary foundation to complete the programme. This module equips students with hands-on experience preparing them to be creative, innovative, visionary global leaders who understand the importance of technopreneurship.	
Credit Value	3	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1. Define and discuss the various terms in technology and business that leads to appropriate usage of facts in being a technopreneur. 2. Plan and design a business plan that covers various areas of an organization including the financial, marketing and legal aspects. 3. Effectively present a business plan to clients using various technologies and tools. 	
Assessment	Coursework	100%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Posadas, D (2009) Jump Start: A Technopreneurship Fable, Pearson Education, 1st Ed 2. Posadas, D (2007) RICE & CHIPS: Technopreneurship and Innovation in Asia, Pearson Education South Asia PTe, 1st Ed 3. Turner, C (2009) Teaching Entrepreneurship: Building on The Singapore Experiment, Cambridge University Press 4. Tromprenaas, F (2010) Riding the Waves of Innovation: Harness the Power of Global Culture to Drive Creativity and Growth, Mc-GrawHill, 1st Ed 5. Fettes, M (2010) The Development of University-Based Entrepreneurship Ecosystems: Global Practices, Edward Elgar Publisher 	

Name of Course/Module	Creative Computing	
Course Code	CS2334	
Rationale	This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme. This module focuses on expressing creative ideas through computing. At the end of the course unit you will understand some foundational creative processes in the form of computer programs that produce audio-visual content to very high standards.	
Credit Value	4	
Prerequisite (if any)	CS1022 Computer Fundamentals	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ul style="list-style-type: none"> a. Implement creative concepts that are not easily realised with commercial software packages b. Demonstrate a high degree of originality in students' own creative work. 	
Assessment	Final Examination 40% Coursework 60% TOTAL 100%	
References	<ol style="list-style-type: none"> 1. Reas, C. and B. Fry (2007) <i>Processing: A Programming Handbook for Visual Designers and Artists</i>, MIT Press 2. Reas, C. and B. Fry http://www.processing.org/reference , on-line Processing reference manual. 3. Maeda, J. (2004) <i>Creative Code</i>, Thames and Hudson. 4. Moggridge, B. (2006) <i>Designing Interactions</i>, MIT Press 5. Berger, J. (1990) <i>Ways of Seeing</i>, Penguin, reprint edition 	

Name of Course/Module	Professional Placement	
Course Code	CS2244	
Rationale	<p>This is a specialization module that provides specialist knowledge, competencies and skills necessary to complete the programme.</p> <p>This an internship module aimed at exposing students to 12-weeks of industrial experience. It is coupled with tutorial recap sessions prior to their working stint.</p>	
Credit Value	4	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> Design and develop Multimedia based application for industries concerned Design and develop programs for process automation in business environment concerned, Be equipped with the required skills to perform trouble shooting of computer systems and support end users in their daily computer systems usage Design and develop Web based application 	
Assessment	Supervisor Evaluation	20%
	Employer Evaluation	20%
	Job Task completion	50%
	Objective completion	10%
	TOTAL	100%
References	<ol style="list-style-type: none"> Halvorson, M (2010) <i>Microsoft Visual Basic 2010 Step by Step (Step By Step)</i>, Microsoft Press, 1st Ed Liang Y. D. (2008) <i>Introduction to Java Programming, Comprehensive</i>, Prentice Hall, 7th Ed Foxall, J (2010) <i>Sams Teach Yourself Visual Basic 2010 in 24 Hours Complete Starter Kit</i>, Sams, 1st Ed Schneider, D (2010) <i>Introduction to Programming Using Visual Basic 2010</i>, Prentice Hall, 8th Ed Goodman, D. (2007), <i>JavaScript Bible</i>, ISBN: 978-0-470-06916-5, 6th Ed. Begleiter, M. (2010), <i>From Word to Image: Storyboarding and the Filmmaking Process</i>, 2nd Ed. 	

Name of Course/Module	Tertiary English 1	
Course Code	TE1	
Rationale	The objective of this subject is to introduce students to general skills in reading, writing, and speaking. These skills will enable the students to better access knowledge in various fields in an academic manner.	
Credit Value	3	
Prerequisite (if any)	None	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1. Read academic text while utilizing specific reading techniques such as skimming and scanning; 2. Use pre-writing skills effectively; 3. Identify the common errors that are made when writing essays; 4. Use paraphrasing and referencing skills effectively in writing without plagiarizing; and 5. Write expository and argumentative essays 	
Assessment	Coursework	60%
	Examination	40%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Langan, J. (2008) College writing skills with readings. 7th edn. New York: McGraw-Hill Higher Education. 2. Brannan, B. (2006) A writer's workshop: creating paragraphs, building essays. 2nd edn. New York: McGraw-Hill Higher Education. 	

Name of Course/Module	Tertiary English 2	
Course Code	TE2	
Rationale	The main objective of this subject is to introduce students to research skills. These skills include critical reading, academic writing and oral presentation using appropriate audio-visual aids.	
Credit Value	3	
Prerequisite (if any)	TE1	
Learning Outcomes	<p>Upon successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1. Determine the scope for a research; 2. Find, select and evaluate information for a research; 3. Read critically and express views in an academic style; 4. Write a report to communicate the results of a research; and 5. Give-oral presentation in a formal setting. 	
Assessment	Coursework	60%
	Examination	40%
	TOTAL	100%
References	<ol style="list-style-type: none"> 1. Langan, J. (2008) College writing skills with readings. 7th edn. New York: McGraw-Hill Higher Education. 2. Bandilla, W. (2002) 'Web surveys: an appropriate mode of data collection for the social sciences?', in Batinic, B., Reips, U.D., & Bosnjak, M. (eds.) Online social sciences. Seattle, WA: Hogrefe & Huber, pp. 1-6. 	