DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY
DIPLOMA PROGRAMME

The Diploma in Information Technology programme deals with designing innovative methodologies and sophisticated tools for developing software systems. Students are exposed to various techniques of analyzing user requirements and specifications, as well as design and implementation of software systems. Some of the core courses include object-oriented programming, database systems, software engineering and introduction to multimedia.

PROGRAM OUTCOME

1. Graduates should be able to understand fundamental principles of Computer Science and Information Technology.
2. Graduates should be able analyze, design and develop database ICT system.
3. Graduates should be able configure hardware, maintain and admin computer operation systems and network.
4. Graduates should be able apply multimedia authoring tools for multimedia system development and simple multimedia presentation.
5. Graduates should be able exhibit critical and creative thinking in resolving problems and able communicate effectively across audience.
6. Graduates should be able to contribute individually or in a team in various discipline and domain.
7. Graduates should have good personalities and ethics with leadership and entrepreneurship skills.
1. Graduates should be able continue learning independently in the acquisition of new knowledge and skill.

CAREER PROSPECTS

Graduates of the program will be able to work as Programmers, Analyst Programmers, Multimedia Programmers, Network Administrators, Software Developers and any IT related positions. They may also pursue further education at degree level at UTeM.

CURRICULUM STRUCTURE

Student will be graduating with Diploma in Computer Science after successfully completing at least 94 credit hours. Credit hours for subjects are as follows:

<table>
<thead>
<tr>
<th>Components</th>
<th>Credit Hours</th>
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<tr>
<td>University Compulsory Subjects</td>
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<td>Program Core Subjects</td>
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### UNIVERSITY COMPULSORY SUBJECTS  (18 credits)

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<tr>
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<td>Entrepreneurship Basics</td>
<td>(Asas Pembudayaan Keusahawanan)</td>
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<td>Asia &amp; Islamic Civilization</td>
<td>(Tamadun Islam dan Tamadun Asia)</td>
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<td>Ethnic Relation</td>
<td>(Hubungan Etnik)</td>
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<td>Technical Communication I</td>
<td>(Komunikasi Teknikal I)</td>
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<td>Technical Communication II</td>
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<td>Philosophy of Science and Technology</td>
<td>(Falsafah Sains dan Teknologi)</td>
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<td>Critical and Creative Thinking</td>
<td>(Pemikiran Kritis dan Kreatif)</td>
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### PROGRAMME CORE SUBJECTS  (18 credits)

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<td>(Matematik Sains Komputer I)</td>
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<td>Statistics and Probability</td>
<td>(Statistik dan Kebarangkalian)</td>
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<td>System Development Workshop</td>
<td>(Bengkel Pembangunan Sistem)</td>
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<td>DITU 2963</td>
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### COURSE CORE SUBJECTS  (45 credits)

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<td>Basic Database Programming</td>
<td>(Asas Pengaturcaraan Pangkalan Data)</td>
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<td>DITP 2113</td>
<td>Data Structure and Algorithm</td>
<td>(Struktur Data dan Algoritma)</td>
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<td>System Analysis and Design</td>
<td>(Analisa dan Rekabentuk Sistem)</td>
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<td>Object Oriented Programming</td>
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DITP 3213 Software Engineering
(Kejuruteraan Perisian)
DENG 1113 Basic Electronic and Microprocessor
(Asas Elektronik dan Mikropemproses)
DITS 1113 Introduction to Information Technology
(Pengenalan Teknologi Maklumat)
DITS 1133 Computer Organization & Architecture
(Organisasi dan Senibina komputer)
DITS 2213 Operating System
(Sistem Pengoperasian)
DITS 2313 Data Communication and Networking
(Komunikasi Data & Rangkaian)
DITS 2413 Computer Security
(Keselamatan Komputer)
DITM 2113 Multimedia System
(Sistem Multimedia)
DITM 2123 Web Programming
(Pengaturcaraan Web)

**ELECTIVE SUBJECTS** (12 credits)

DITS 3612 Basic Cisco Network
(Asas Rangkaian Cisco)
DITS 3622 Router and Routing Cisco
(Penghala dan Penghalaan Cisco)
DITS 3711 System Installation, Configuration and Administration
(Pemasangan, Konfigurasi dan Pentadbiran Sistem)
DITS 3722 Implementing And Administering Active Directory
(Perlaksanaan dan Pentadbiran Aktif Direktori)
DITS 3732 Implementing And Administering Network Infrastructure
(Perlaksanaan dan Pentadbiran Infrastruktur Rangkaian)
DITS 3742 Server Installation, Configuration and Administration
(Pemasangan, Konfigurasi dan Pentadbiran Pelayan)
DITS 3751 Directory Service Infrastructure Design
(Rekabentuk Infrastruktur Perkhidmatan Direktori)
DITS 3762 Network Security Design
(Rekabentuk Keselamatan Rangkaian)
DITS 3771 Network Infrastructure Design
(Rekabentuk Infrastruktur Rangkaian)
DITM 3612 Macromedia Dreamweaver Authoring Tool
(Alatan Pengarangan Macromedia Dreamweaver)
DITM 3622 Macromedia Flash Application Development
(Pembangunan Aplikasi Macromedia Flash)
## CURRICULUM STRUCTURE PER SEMESTER

### Year One (Semester I)

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### Year Two (Semester I)

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**This subject can be taken in any semester.**
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<td>2 Lecture, 2 Lab</td>
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<td>Web Programming</td>
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<td>Data Communication and Networking</td>
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### Year Three (Semester I)

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<td>Software Engineering</td>
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<td>DITU 3933</td>
<td>System Development Workshop</td>
<td>0 Lecture, 9 Lab</td>
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**Elective Subjects**

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**Third Language**

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PROGRAMME CORE SUBJECTS

DACS 1253  Mathematics For Computer Science I (3,2,2)

Learning Outcomes

Upon completing this subject, students should be able to:

1. Apply knowledge and fundamental concepts of Linear Algebra and Discrete Mathematics.
2. Solve problems particularly in computer science using Linear Algebra and Discrete Mathematics theories and tools.
3. Solve Linear Algebra and Discrete Mathematics problem through relevant informations by selecting suitable concept.

Synopsis

This course covers two mathematics disciplines namely Linear Algebra and Discrete Mathematics. Topics for Linear Algebra include linear equations, matrices, determinants, vector in $\mathbb{R}^n$, real vector spaces, eigenvalues, eigenvectors, diagonalization and linear transformation. Topics for Discrete Mathematics include logic, sets, function, algorithms and integers, mathematical reasoning, counting, relations, graphs, trees and Boolean algebra.

References


DACS 1283  Mathematics For Computer Science II (3,2,2)

Learning Outcomes

Upon completing this subject, students should be able to:

1. Apply the knowledge and basic concept of calculus and numerical method.
2. Solve the problem in computer science by using the theory of calculus and numerical method.
3. Solve the application problem through relevant information by selecting the appropriate technique.

Synopsis

This course covers two disciplines of mathematics namely calculus and numerical method. The topic in calculus includes function, techniques of differentiation, exponential and natural logarithm functions and its applications, techniques of integration and function of several variables. The topic in numerical method includes Taylor polynomial, computer representation of numbers, error, interpolation, numerical differentiation and integration.

References


DACS 2213 – Statistics and Probability (3,2,2)

Learning Outcomes

Upon completing this subject, students should be able to:
1. Apply data by using descriptive statistic as tables, charts and numerical measures.
2. Solve inferential statistical problems using estimation concept and hypothesis test.
3. Solve application problem using relevant information by choosing appropriate statistical technique.

Synopsis

Students are exposed to the concept of probability and inferential statistics. The course starts with data description and Numerical Measures, Probability, Discrete Random Variables, Continuous Random Variables, and Sampling Distribution. Main topics for Inferential statistics will start with Estimation. This will be followed by Population Hypothesis Testing, Estimation and Simple Linear Regression and Correlation. Besides that, this course will give some exposure to statistical software.

References


DITU 3933- System Development Workshop (3,0,9)

Learning Outcomes

By the end of this subject, students should be able to:

1. Solve and develop a project in a group.
2. Apply systems development and design concepts to a current development project
3. Identify, analyse and manage changes to a project scope for the duration of the project life cycle
4. Manage the project in groups ethically.
5. Present and defend the project outcome.

Synopsis

This course gives opportunity to the students to apply knowledges gained from semester 1 to 4 to complete the system development project.

References


DITU 2363 – Industrial Training(3,0,15)

Learning Outcomes

By the end of this subject, students should be able to:

1. Conduct tasks and responsibilities as an employee in an ICT field
2. Apply skills and knowledge gained during their studies
3. Practice discipline and ethics in daily routines.
4. Use the latest technology in the field of ICT.
5. Interact and communicate with colleagues with morals.
**Synopsis**

It is compulsory for every student to undergo practical training for a period of not less than 10 weeks in an organization chosen by the students themselves. During the training, besides the industry supervision, the students will be supervised continuously by the faculty supervisor. The faculty supervisor will visit the student only once to assess the student's presentation towards the end of the training. The student will note in their log books all activities done during the industrial training. The student will also be required to produce an industrial training report and the end of the training.

**References**


**DITU 3964  Diploma Project (4,0,9)**

**Learning Outcomes**

By the end of this subject, students should be able to:

1. Develop and analyze system applications using relevant project management method.
2. Identify and define problems related to industrial needs in the ICT domain.
3. Present and defend their work.
4. Organize information to produce a formal report.
5. Complete project outcome which has commercial values

**Synopsis**

Diploma project trains the students to practice knowledge gained to a project that they will develop. The students are exposed to real system development environment in which they will have to analyze and solve system related problems, plan and develop the system as well as to meet the results of the design and analysis using appropriate computer programming language.

**References**


**COURSE CORE SUBJECTS**

**DITP 1113  Programming I (3,2,1)**

**Learning Outcomes**

Upon completing this subject, students should be able to:

1. Explain and describe the language elements in C++ programming language.
2. Solve programming problems and discover alternative solution by developing the algorithm.
3. Modify and reproduce a simple program using programming structures such as conditionals, loops and functions.

**Synopsis**

This course discusses about the basic principles of computers, software development methodology and basic programming principles such as syntax, semantic, compiling, and linking. Programming techniques using C++ such as data type and operator, selection, repetition, function, array, file, structure and pointer are learnt towards the end of this course.
DITP 1123 Programming II (3,4,1)

Learning Outcomes

At the end of the course, students should be able to:
1. Practice the programming skills.
2. Design programs with the implementation of object-based concepts.
3. Apply MFC structure in programming project.

Synopsis

This course introduces the concepts of windows programming (graphical user interface application) through MFC. The topic starts with object-oriented programming which covers the explanation of class and objects, inheritance, polymorphism and encapsulation.

Also, students will be exposed to design an appropriate problem solving that combine the skills of basic programming skills together with the understanding of MFC.

References


DITP 1323 Basic Database Programming (3,2,1)

Learning Outcomes

Upon completing this subject, students should be able to:

1. draw Entity Relationship Diagram (ERD) based on database and data modeling concepts.
2. apply normalization process.
3. apply SQL Data Definition Language (DDL) and Data Manipulation Language (DML).

Synopsis

This is an introductory course to database and file management systems. It helps the students to build an understanding of the role of data modelling, data normalization, file management and database systems in information system management. Students are also exposed on how to design Entity Relationship Diagram (ERD), develop and implement the database application. The course will address and place emphasis upon the practical side of creating, maintaining, and querying a relational database by using SQL Data Definition Language (DDL) and Data Manipulation Language (DML).

References


DITP 2113  Data Structures and Algorithm (3,2,2)

Learning Outcomes

By the end of this subject, students will be able to:
1. Differentiate types of data structures whether linear or non-linear in programming.
2. Show the best algorithm in terms of algorithm design and run time efficiency.
3. Apply basic data structures and algorithms such as list, stack, queue, tree in problem solving.

Synopsis

In this course, students will be explained what is all about data structure and algorithm and types of data structures in programming. The fundamental of program development are by using Abstract data Type (ADT), Classes, Pointers and Recursive functions will also be exposed to students. Also, algorithm efficiency analysis based on run time will be discussed. Apart for that, students will learn the operations and the algorithm efficiency on data structures such as sorting and searching. Furthermore, students will be explained on how to apply the linear data structure such as linked-list, stack and queue and non linear data structure such as tree. Besides theory explanations, students are required to apply the data structures concept in programs by developing group mini project.

References


DITP 2213  System Analysis and Design (3,2,2)

Learning Outcomes

By the end of this course, students should be able to:
1. Explain the several types of information systems
2. Apply and to explain the difference between the waterfall, prototype and RAD methodology to develop a system
3. Use several tools and techniques to plan, analyze and design a new system according to current problem needs.

Synopsis

In this course, students will be introduced to a variety of information systems and its importance to the strategic direction of the organization. Furthermore, this course explains the varied systems development lifecycle especially the Waterfall, prototype and RAD. After that, it discusses the new system development plan with a focus on project management. The analysis phase will emphasize on the DFD and ERD in structuring users needs. The design phase meanwhile discusses form design and report, database, interface design and distributed computing. Implementation phase will discuss the coding, data migration, testing and system maintenance..

Reference

References


DITP 3113 Object Oriented Programming (3,2,2)

Learning Outcomes

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

1. Explain the concepts of object oriented design and methodology.
2. Design programs which implement data abstraction, encapsulation, polymorphism and inheritance.
3. Apply console, applet and GUI concepts in programs for user interface.

Synopsis

This course will introduce the fundamentals of object oriented programming such as encapsulation, polymorphism and inheritance. Apart from that, graphics, event handling, interface components, data abstraction and exception handling in Java will be explained.

References

DENG 1113  Basic Electronic & Microprocessor ** (3,2,2)

Learning Outcomes

By the end of this course, students should be able to:
1. Understand and apply the concept, application and testing in basic electronic.
2. Explain the basic concepts of gates, register and other number representation like binary, decimal and hexadecimal.
3. Explain and apply digital circuit in microprocessing application.

Synopsis

This course contains two parts: basic electronic and microprocessing technology. The first part will introduce the concepts and functions in computer system like resistor, kapasitor, cable, and transistor. Second part will introduce number system, logic gates, Boolean operation, logic combinator and digital circuit in microprocessing.

References


** Service subject from Fakulti Kejuruteraan Elektronik & Kejuruteraan Komputer
DITS 1133  Computer Organization and Architecture (3,2,1)

Learning Outcomes
At the end of the course, students should be able to:
1. Elaborate computer architecture and organization, the important area of parallel organization, and basic instruction set assembly language and their relevance with computer organization and architecture.
2. Manipulate each of primary computer system’s functional components, their characteristics and their interactions including system bus, different types of memory and Input/Output and CPU followed by current computer technology.
3. Solve different type of number representation, design basic digital logic circuit and assemble the basic element of computer and create disk partitioning and formatting.

Synopsis
This subject provides a detail of computer system’s functional components, their characteristics, their performance and their interactions including system bus, different types of memory and Input/Output and CPU, as well as practical implementations of the components. Besides, the architectural issues, such as instruction set design and data types, are covered. In addition to this, students are introduced to the increasingly important area of parallel organization.

References

DITS 2213  Operating System (3,2,2)

Learning Outcomes
By the end of this subject, students should be able to:
1. Explain the fundamental of operating system concepts and the underlying structure.
2. Use and ability to explore the operating system such as Windows and Linux.
3. Perform basic system administration task in Windows and Linux operating system.

Synopsis
This course is designed to give an exposure to students about the fundamental of operating system including process, management of memory, file and I/O and also about CPU scheduling. The introduction part consists of the evolution of operating system since it started until now. Student will also learn about the basic concepts, technology and theory used in operating system such as concurrency, kernel, deadlock and multithreading.

References
DITS 2313  Data Communication And Networking (3,2,1)

Learning Outcomes

By the end of this subject, students should be able to:

1. Apply the knowledge, concept and term related to data communication dan networking.
2. Solve problem in networking by referring to problems solving steps and with reference to the concept of data communication and networking.
3. Solve application problem through relevant information by choosing suitable technique.

Synopsis

In this course, the students will be explained about several concepts in order to able to understand, explain and apply the basic concept of data communication and networking technology and the competency to use network application, troubleshooting and configuring basic network using guided and unguided media.

References


DITS 2413  Computer Security (3,2,2)

Learning Outcomes

By the end of this subject, the student should be able to:

1. Provides foundation knowledge for further advanced study of security issues in computer, legal/ethical issues knowledge and workstation resources.
2. Manage to configure a workstation to monitor the system’s performance.
3. Manage the hard disk, data storage, disaster recovery and device drivers with device driver signing and driver restoring.

Synopsis

This subject provides students with the knowledge and skills that are needed to effectively maintain Workstation resources, monitor Workstation performance, and safeguard data on a computer running one of the operating systems in the Microsoft® Windows.

References

DITM 2113  Multimedia Systems (3,2,2)

Learning Outcomes

Upon completion of this subject, students should be able to:

1. State and explain core concepts of multimedia systems
2. Show and reproduce multimedia applications by combining elements of teks, graphics, audio, video and animation according to current needs
3. Apply skills learnt to solve problems by choosing several environments where multimedia might be used and different aspects of multimedia which can be of use in the presentation of information

Synopsis

This course is conducted to give an exposure to students with regards to core concepts of multimedia, technology and the importance of multimedia applications. The topics which the students will learn include introduction to media, implementation of multimedia graphics, graphics and 2D/3D animation, video, audio, multimedia authoring, multimedia integration and application development. Lab sessions will introduce students to a variety of media softwares for the integration of medias. Students will also be exposed to practical sessions of media preparation like image editing, animation and audio production, short video and to apply it effectively in a multimedia project done in groups. At the end of the semester, each group is required to present their projects in a formal session.

Reference


DITM 2123  Web Programming (3,2,2)

Learning Outcomes

Upon completion of this course, students should be able:

1. Explain the concept and the principle of Internet and WWW based on the latest technologies.
2. Relate the appropriate use of important components in developing web applications.
3. Identify and develop a web application as a group work project by using the important components in web applications which are Client Site Technology, Server Site Technology, Database Server and Web Server.

Synopsis

The purpose of this course is to provide students with a comprehensive understanding of the tools and problem-solving techniques related to building effective World Wide Web sites. It emphasises 4 components in developing web applications which are

- Client Site Technologies: HTML, XHTML, CSS, XML, and JavaScript
- Server Site Technologies: PHP
- Database Server: MySQL
- Web Servers : Apache

References


ELECTIVE SUBJECTS

DITS 3612 Basic Cisco Network (3,2,4)

Learning Outcomes

At the completion of this subject, students should be able to:
1. Relate in maths, terminology, and network model.
2. Explain specification and network media function follow the suitable current requirement.
3. Explain installation and configuration basis of perkasasan Cisco's routing.

Synopsis

This subject is beginning course from four preparation course direction obtain certificate professional CCNA. DITS3612 introduces students to network field. This course focus to network terminology, network protocol, local area network, network extensive area, open system extension model, cabelling, cabelling tools, routing, routing programming, Ethernet's technology, protocol internet addressing, and network standards.

References


DITS 3622 Router and Routing Cisco (2,2,4)

Learning Outcomes

At the successful completion of this subject, students should be able to:
1. Apply the routing concepts as well as elaborate TCP/IP concept
2. Reproduce routing protocol instructions and routing based on current requirement.
3. Solve routing protocol problem and router and also select cabelling techniques and configure router.

Synopsis

This subject focuses on initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Students will develop skills on how to configure a router, manage Cisco IOS Software, configure routing protocol and create access lists controlling access to the router.

References

DITS 3711 Installation, Configuration and System Administration (2,0,2)

Learning Outcomes

By the end of this subject, students should be able to:

1. Apply knowledge, concept and term which related to system administration by using Windows 2003 Server platform.
2. Solve problem in networking by using utility software by referring to system administration concept.
3. Solve application problem by using relevant information by choosing an appropriate technique.

Synopsis

This course is designed to give an exposure related to system administration on Windows 2003 platform. This course covers Windows 2003 server platform installation, installing Windows 2003 Domain, the usage of the Windows 2003 Server utility software, configuring hardware, desktop environment and Operating System registry.

References


DITS 3722 Implementing and Administering Active Directory (2,0,2)

Learning Outcomes

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

1. Explain the term, concept and the usage of Active Directory in various source.
2. Apply the installation, configuration and management of Active Directory features.
3. Solve and select Active Directory administration through the use of security features, group policy and software deployment tools.

Synopsis

This course teaches the student on how to implement and configure Active Directory. Besides, it guides to manage name resolution, schema and replication. The purpose of active directory usage is to manage users, groups, shared folder and network resource and to administer the user environment and software with group policy. It also will cover monitoring and optimizing Active Directory.

References

DITS 3732 Implementing and Administering Network Infrastructure (2,0,4)

Learning Outcomes

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

1. Explain and select the terms, concepts and goals of network infrastructure based on various source.
2. Apply and reproduce network environment by using network infrastructure elements
3. Solve problem by design, install, configure, display and manage services in a network infrastructure based on current requirement.

Synopsis

This course will equip students with the skills to install and configure a Microsoft Windows Server network infrastructure. The student will know how to install the server automatically and manually. In a server environment, students will learn to configure services that can be offered by the server such as DHCP, DNS, VPN and IPSec.

References


DITS 3742 Server Installation, Configuration and Administration (2,0,4)

Learning Outcomes

By the end of this subject, students should be able to:

1. Explain terms and concepts as well as the purpose of server administration.
2. Apply installation skill, configure and administer Windows 2000 server system.
3. Solve and select server administration in network environments.

Synopsis

This course gives preparation to students to be able to install Windows 2000 Server, solve the problem during installation of Windows 2000 server, able to do Unattended Installation, automatically install Windows 2000 server and administer file system in Windows 2000 server.

References

**DITS 3751 Directory Service Infrastructure Design (2,0,4)**

**Learning Outcomes**

By the end of this subject, students should be able to:

1. Explain and select the methodology in creating directory service infrastructure.
2. Apply the knowledge in using tools to design directory service infrastructure.
3. Have the skills to create directory service infrastructure design based on suitable source.

**Synopsis**

This subject covers the approach in designing directory service infrastructure that covers the introduction part, the active directory naming strategy, active directory design for both administrative authority and group policy along with schema policy design. Students will also exposed with variety kinds of designs in directory service infrastructure that includes designs for active directory domain, double domain structure, active directory topology site and also active directory infrastructure.

**References**


**DITS 3762 Network Security Design (2,0,4)**

**Learning Outcomes**

By the end of this subject, students should be able to:

1. Explain and select the terms, concepts and objective of network security absed on various source.
2. Apply the concept and skill to design network security.
3. Solve through reproducing using security characteristic, group policy and software handling tool for designing network security.

**Synopsis**

This course is designed to give an exposure to students about the introduction of security, analyse the network risk, windows 2000, access management plan, user account management, file recovery, print resources and communication path, secure access for non MS user, remote user, remote office, network and internet user, ‘Private Key’ infrastructure and security planning design.

**References**

DITS 3771  Designing Network Infrastructure (2,0,4)

Learning Outcomes

At the end of the course, students should be able to:
1. Apply the methodology for designing the network infrastructure more effectively.
2. Solve the problem by designing the infrastructure using an appropriate tool.
3. Respond to the effectiveness of the proposed infrastructure design based on relevant source.

Synopsis

This course teaches the student how to design network infrastructure depends on real attributes. Design process covers the combination of TCP/IP Solution, Automatic IP Configuration Services (DHCP), Name Resolution Services (DNS & NetBIOS), Internet Connection, Inter Network Connection and Remote Users. It also emphasizes on Windows Network Development Strategic development.

References


DITM 3612  Macromedia Dreamweaver Authoring Tool (2,0,4)

Learning Outcomes

By the end of this subject, students should be able to:
1. Explain and apply the main process of a complete website development.
2. Solve problem based on practical skills in responding and utilizing various tools and functions in Adobe Dreamweaver.
3. Research the installation process and handle the website site by selecting the appropriate Dreameweaver functions through relevant and suitable information.

Synopsis

This course introduces the students to Adobe Dreamweaver CS3 version as a website authoring tool. The subject contains only lab sessions, which is task-based with students learning by doing. The lab sessions will cover from the introduction of basic features in Adobe Dreamweaver until publishing a complete website. Students are required to work in pairs to produce their own website with appropriate user interface design, animation and interactivity based on the theme given. A complete web application has to be submitted at the end of the semester and students are also required to present their work in formal project presentation.

References

Learning Outcomes

Upon completion of this course, students should be able to:
1. Apply the ActionScript Programming in Flash.
2. Show and explain on how to apply the design and programming techniques in building Flash applications.
3. Solve the problem by developing an interactive media application using Flash.
4. Reproduce multimedia resources from other media applications to create an interactive media application.

Synopsis

This subject emphasizes on basic concepts in using ActionScript programming in Flash. Students will learn how to use the core features in Flash and apply both designing and programming techniques in creating application creatively. They will develop a multimedia project and present their application at the end of the semester. Lab sessions will expose students on the usages of Flash in creating applications through intensive lab exercises.

References