Scandinavian Art & Business Institute

SABI

Scandinavian Art and Business Institute™

Private Higher Education Institute

Bachelor of Science in Information Technology | BScIT

Program Handbook & Course Manual

In cooperation with AIMS College

AIMS COLLEGE

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Program Outline

Introduction

The **Bachelor of Science in Information Technology** (**BScIT**) is a degree program that prepares individuals for careers in Information Technology. It is conducted and offered by Scandinavian Art and Business Institute|Finland and France. This degree program is designed to address the key principles of the Internet, network and distributed computing, programming design and applicaPrtions. Although much of the technology studied is very modern, all subjects have a firm foundation in computer science and software engineering principles.

Rationale

This degree program provides students with the knowledge and skills in computing that allow them to be effective in the rapidly expanding field of Internet systems applications and development. The emphasis is on the core computing skills, Internet systems and technologies, combined with skills in understanding software design and development.

Career Possibilities

The ICT industry provides employment opportunities in application areas such as science, technology, banking, education and retailing. Skilled professionals are needed to identify new applications, to enhance existing ones and to develop solutions for their clients. In particular, the modules offered in this program could lead to careers in network management, web design and management, e-commerce and web-based software development among others. As this program provides a broad-based and balanced view of computer science and information communication technology, the focus is on the Internet and distributed computing. Graduates will understand the basic principles of these technologies and will be able to apply them creatively to the development of Internet, network, information management and distributed applications.

Aims and Objectives

The aim of this degree program is to enable graduates to practice as professionals in the application of modern computing technology in particular Internet, network and distributed technologies, to anticipate, to adapt to, and initiate change in its future development, and to appreciate its relevance within business and commercial domains, and information service applications and environments.

Bsc in IT
In cooperation with NetAcademy

PROGRAM STRUCTURE

The program is a final-year top up Bachelor's degree program consisting of the following eight (8) modules:

IT401	System Analysis and Design
IT402	Network and Distributed Systems
IT403	Social and Organizational Issues in Computing
IT404	Management Information System
IT405	Internet Security Management
IT406	Java Business Programing
IT407	Database Design and Management
IT408	Knowledge Management
IT409	Project | Case Study

BENEFITS OF THE SABI BSCIT IN COLLABORATION WITH NETACADEMY

The program is conducted by Scandinavian Art and Business Institute|Finland and France(SABI) in collaboration with NetAcademy, Malaysia who shall act as an approved recruitment and academic resource centre in Malaysia. This smart partnership between SABI's many years of academic experience and NetAcademy's academic resources and e-learning platform is a marriage of many mutual benefits that students will enjoy. Among them are:

- A highly sought-after degree by business, government and private industries worldwide who are seeking effective and up to-date professionals and leaders.
- Allows students to better understand the most critical asset of an organization - it's knowledge and data as well as its people.

- To distinguish themselves in the job market with access to **Harvard Business Publishing** materials.
- To enhance the student's knowledge base, critical analysis, thinking, and problem solving skills needed in the real world context of Information Communication Technology focusing on business and commercial needs
- Using the most current Information Communication Technology and academic course materials available.

ASSESSMENT METHODS

The assessment for the SABI BScIT program is **100% by coursework** for each of the eight (8) modules plus project described. In general the coursework shall consist of a **3,000 (+/- 10%) words written assignment** which is to be submitted in a professional consultative report format. Further details of each module assignment will be provided by the module facilitator.

MODE OF STUDY – TEACHING/LEARNING STRATEGY

The program is delivered **modularly,** i.e. one module over a 6-week period at a time through **distance learning** with **face-to-face** and **web-based support**. The entire program can be completed in **12 – 15 months**. Contact hours and study hours shall be broken down as follows:

Table 2.3a: Contact/Study Hours per Module

	Contact / Study hours per module	
Delivery Mode	**Lectures/self study**	**Tutorials**
Face-to-face tutorials with facilitators	8	
NetTutor for assignment support (virtual classroom / online workshop)		5
Pre-recorded tutorials		8
Group Presentation in Virtual Classroom		5
Interactive Self Study	12	
Forum	10	
Total Contact / Study Hours	**48**	

In the spirit of blended and flexible e-learning, the onus of study rests with the student but will be comprehensively supported by:

- Electronic resources such as e-library, on-line tutorials and chats by **NetAcademy**
- Over 200 audio-visual files on various management titles compiled by **NetAcademy**
- Latest **Action Learning Seminar** series materials by **Harvard Business Publishing**
- Hard and soft copies of course materials, study guides, CD-ROM handout

APPLICATION PROCEDURE

i) All students wishing to apply must thoroughly complete an Application for Admissions form, failing which it will be returned.

ii) The following documents are to accompany the Application for Admissions:

- Curriculum Vitae / Resume
- Certified true copies (commissioner of oaths / NetAcademy who must sight originals) of award scrolls and transcripts of previous qualifications including SPM onwards.
- Current and/or former employer and/or referee testimonials.
- Relevant fees according to the latest fees schedule.

VALIDATING AND AWARDING

The **BScIT** program will be conducted, validated and awarded based on the stringent academic standards set by Scandinavian Art and Business Institute | Finland and France.

GRADING STRUCTURE AND GRADUATION REQUIREMENTS

All modules are graded out of 100% with a **minimum of 50% to pass** a module. The academic performance of a student is based on the grades obtained and the accompanying grade point average as indicated below:

Table 2.6a: Grading Scheme

Note: Any late submission of assignment will be subjected to a late processing fee.

Marks (%)	Grade	Grade Point	Classification	Status
95 - 100	A+	4.00	High Distinction	Pass
90 – 94	A	3.67	Distinction	Pass
85 – 89	B+	3.33	Credit	Pass
80 – 84	B	3.00		Pass
75 – 79	B-	2.67		Pass
70 – 74	C+	2.33	Pass	Pass
65 – 69	C	2.00		Pass
60 - 64	C-	1.67	Below Average	***Refer:*** *Students have to resubmit their assignments which will be capped at a "C" Grade*
55 – 59	D	1.33	Marginal Pass	
50 - 54	D-	1.00		
49 & below	F	0.00	Fail	***Defer:*** *Students will have to register again for the module with the latest* ***accompanying fees*** *at the next offering and submit a new assignment. (no cap on grades)*

Entry Requirements

Eligibility for the SABI BScIT Program shall be based on the following:

- Diploma or Advanced Diploma holders in Computing or ICT from a recognized institution
- Diploma holders above 28 years of age with minimum 3-5 years working experience at supervisory level in the ICT industry.
- Mature students above 30 years of age with a minimum of 5 years of managerial or supervisory working experience in the ICT industry.
- Prospective students who do not fulfill the above requirements may be accepted into the program on a case-by-case basis.

Since this is a modular program, there is no sessional GPA only a cumulative one and given that all modules carry the equal number of contact hours and credits (3), the cumulative GPA will be calculated based on the following:

$$\frac{\Sigma \text{ of all numeric values of 8 grades obtained}}{\text{8 modules attempted}} = \textbf{Cumulative Grade Point Average (CGPA)}$$

The minimum requirement to be eligible for graduation is the attainment of a minimum of a **C grade for all subjects** and an overall **CGPA of 2.00** for all eight modules (24 credits) attempted.

PART II – MODULE SYLLABUS

Bachelor of Science in Information Technology

IT 401: Systems Analysis and Design

Module Objectives

Upon successful completion of this module, students will be able to:

- Demonstrate initiative in investigating a problem
- Establish the requirements for a system by analysing and modelling the requirements to develop practical solutions
- Discuss alternative models and solutions and to argue effectively why some models or solutions are preferred over others.
- Describe the purpose of system development to a business problem
- Describe the phases of a system development project
- Demonstrate an understanding of and the difference between Structured and Object-Oriented approaches to systems analysis

Module Synopsis

- The role of the analyst and the Systems Development Life Cycle (SLDC)
- Investigating systems requirements
- Modelling systems requirement using traditional and contemporary approaches with the aid of cases, and activity diagrams.
- Evaluation of alternatives for requirements, environments and implementation
- Packaged software and ERP solutions
- Exploration of different design options
- Workflow models
- Quality Assurance issues

Reference Text:

Text:	Systems Analysis and Design, 6th edition
Author:	Kenneth Kendall, Julie Kendall
ISBN:	0131454552
Publisher:	Prentice Hall

IT402: Network and Distributed Systems

Module Objectives

Upon successful completion of this module, students will be able to:

- Review applicable concepts and techniques learned earlier in the course and integrate these ideas with the concepts and approaches developed in this course.
- Demonstrate an understanding of telecommunications fundamentals.
- Demonstrate an understanding of local area network architectures.
- Demonstrate an understanding of metropolitan and wide area network architectures.
- Discuss and provide solutions for interconnectivity problems.
- Demonstrate a basic understanding of the various problems associated with the management of networks.
- Demonstrate an understanding of Open Systems and contemporary Distributed Systems models and concepts.
- Given a specific business problem, design and justify a suitable networked solution using sound arguments expressed in either spoken or written forms as required.

Module Sypnosis

- Provide a broad based understanding and knowledge of telecommunications and networking fundamentals
- Greater depth of understanding of networking concepts
- Expand upon knowledge of distributed systems models and concepts
- Opportunity to provide customised solutions for contemporary business problems

Reference Text:

Text:	Data and Computer Communications, 7th edition (2003)
Author:	William Stallings
ISBN:	0131006819
Publisher:	Pearson Education

IT 403: Social and Organisational Issues in Computing

Module Objectives

Upon successful completion of this module, students will be able to:

- Review and understand the evolution of computing and issues surrounding it over time
- Analyse and evaluate the impact of computing on individuals, organisations and society
- Critically analyse situations of computer use and to identify and understand issues that are deemed ethically questionable and to recommend ways to overcome them
- Communicate clearly with others about the impact of computing

Module Synopsis

- Argue on the social consequences of computing
- Study the effects of computer use on social behaviour, job satisfaction, and organisational structure and social biases
- Familiarity with the basis for governmental policymaking and legislation and non-governmental regulation concerning computing in the dissemination of computing technology for hardware and software in business practices along with consequences of unprofessional conduct and other moral dilemmas.
- Governance and regulation on export controls, Internet and wireless communication standards, professional bodies. Jurisdiction and community standards in today's age of global e-commerce.
- Intellectual property rights – copyright and patent principles, proprietary technology and intellectual property rights management
- Privacy: - personal information, its disclosure and misuse. Privacy protection principles, laws and technology.
- Security: - hacking, vandalism, trespass, viruses, and theft. Countermeasures and social consequences, encryption, and national security.
- Professional responsibility: - codes of conduct, their validity, effectiveness and scope. Social responsibility and personal and corporate accountability and liability to the firm.

Reference Text:

Text: Gift of Fire, A: Social, Legal, and Ethical Issues for Computers and the Internet 2nd edition, (2003)
Author: Sara Baase
Publisher: Prentice Hall
ISBN: 0130082155

MGT 404: Management Information Systems

Module Objectives

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

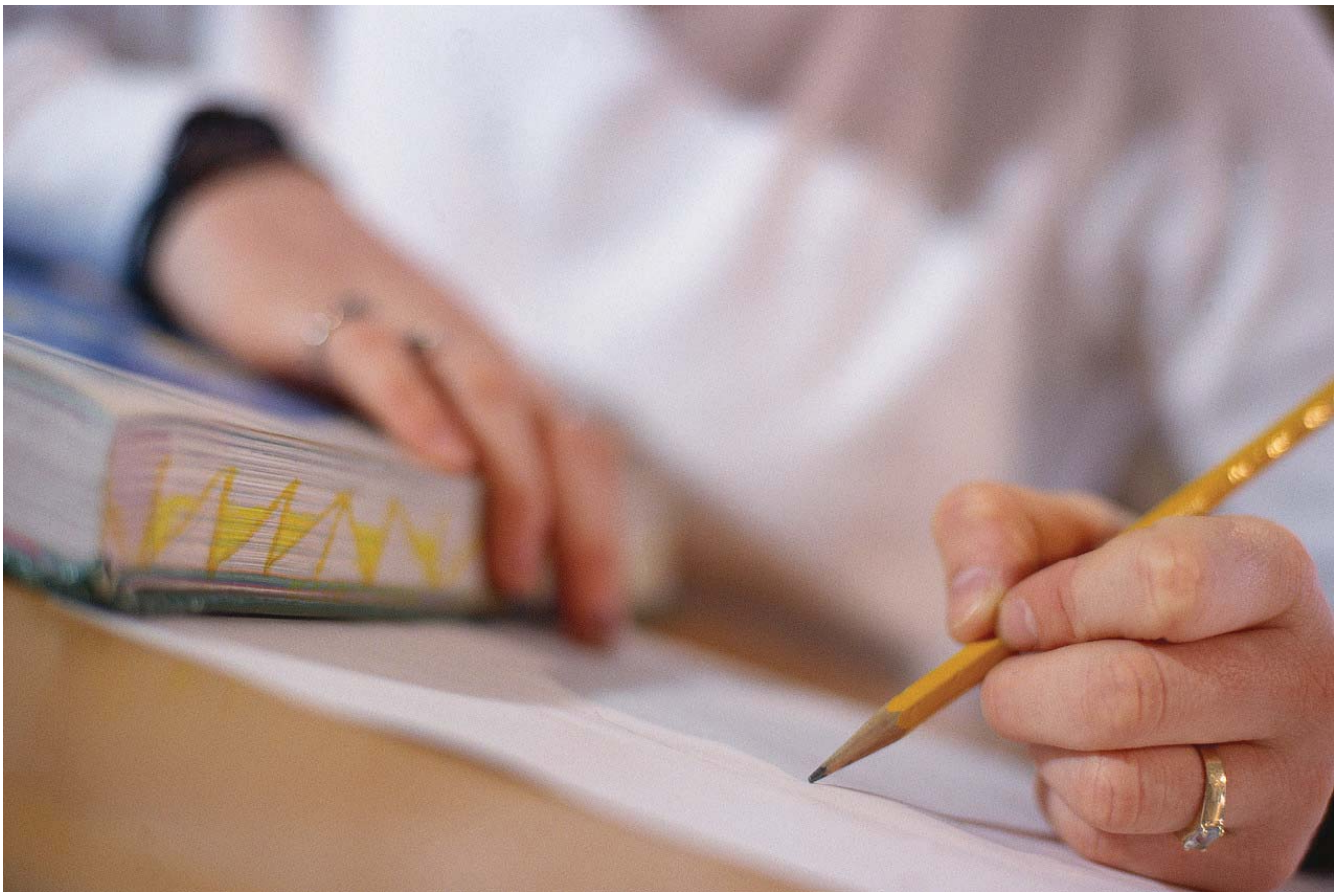
- enable students to differentiate data, information and knowledge towards the different levels of managerial decision-making.
- explain the benefits, limitations & trends of computer hardware & software used in computerized MIS and to familiarise themselves with the different types of systems development and how to overcome the difficulties of its implementation.
- avoid threats to MIS and how to protect it.
- realise the ultimate aim of the strategic role of information systems, which is competitiveness, effectiveness and efficiency via some strategic models.

Module Synopsis:

- The transformation process from data to information to knowledge and its importance and value towards information systems.
- Trends in major components, devices and functions of a computer systems, and the usefulness of business application software, computer networking and telecommunications.
- Different types of information systems in relation to different managerial levels.
- Describing traditional (SDLC) prototyping and end-user approaches to information systems development.
- The growing importance of the IT Department & managing change and how strategic management roles of information systems can gain competitiveness, effectiveness and efficiency for an organization.

Reference Text:

Text: Management Information Systems: Managing the Digital Firm, 9th edition
Author: Kenneth C. Laudon & Jane P. Laudon
Publisher: Prentice Hall
ISBN: 013153841



IT 405: Internet Security Management

Module Objectives

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

- Identify threats to computer systems, characteristics of computer intrusion, types of threats, categories of computer attacks, common attack methods, attack prevention methods,
- Understand cryptography techniques and terminology as security counter measures, key management protocols, arbitration protocols with third parties and how to apply all these measures
- Demonstrate issues relating to auditing and legal issues in computer security
- Understand systems and operating systems security in a corporate network environment
- Demonstrate the ability to identify, implement and manage backup and recovery systems for a networked environment in business applications.
- Understand the rationale, purpose and objectives of a Virtual Private Network (VPN)

Module Synopsis

- Introduction to Internet security management in business organizations
- Various management and legal issues regarding information security in corporate environments
- Features of cyber-crime, hackers, viruses, fraud and theft
- Foundations of information security in a networked environment
- Threat assessments, risk analysis, tactics and strategies for effective corporate information security
- Exploration of the effectiveness of counter measures such as; digital certificates / signatures, computer forensics and third party security providers and other resource implications to prevent cyber-crimes

Reference Text:

Text:	Network Defence and Security
Author:	Chuck Easttom
ISBN:	0131711261
Publisher:	Prentice Hall

IT 406: Java Business Programming

Module Objectives

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

- Understand the evolution, development and capability of web-based programming languages
- Effectively apply object-based, object-oriented and event-driven programming techniques.
- Understand contemporary web-based programming and apply them in developing well constructed Internet software applications for business purposes

Module Synopsis

- This course aims to introduce students to programming in a practical way.
- JavaScript is used to demonstrate concepts and techniques that are fundamental to the development of efficient and effective solutions in any programming language.
- Students will create interactive Web pages, and in doing so discover the practical use of variables, functions, operators, conditional statements and loops, event handlers, objects, string handling, and other general programming techniques, as well as advanced features of the JavaScript language.
- Assuming no previous programming experience, the course provides ample opportunity to learn programming in a relatively inexpensive and fun environment

Reference Text:

Text:	Java Programming Today, 1st edition
Author:	Barbara Johnston
ISBN:	013048623X
Publisher:	Prentice Hall

IT 407: Database Design and Management

Module Objectives

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

- Understand that an essential component of a successful information system is usually a well designed and efficient database.
- Demonstrate the importance for those who wish to become information systems practitioners to have a sound understanding of database theory and current database trends.
- Demonstrate the crucial importance that information systems practitioners understand database design because databases are not only pervasive but are also becoming inexorably larger and more complex.

Module Synopsis

- This course introduces students to relational database theory and design.
- Practical methodologies for data analysis, data modelling and database design are examined, coupled with a detailed study of the relational database model.
- Students will build practical skills in ER diagramming, normalisation and database design.
- Students will also be exposed to a range of topics in database theory and current database trends.

Reference Text:

Text:	Modern Database Management, 8th edition
Author:	Jeffrey Hoffer, Mary Prescott, Fred McFadden
ISBN:	0132212110
Publisher:	Prentice Hall

IT 408: Knowledge Management

Module Description & Learning Objectives

This module is designed to allow students to have a basic understanding of the current state of practice, techniques and technology used by organisations to extract more value from their knowledge assets. It will outline the difference between data, information, knowledge and wisdom and its intricate inter-relationships. Knowledge capture and creation will be portrayed as a dynamic feedback system in its life-cycle to improve organisational performance. Techniques of capturing tacit knowledge and a system of codification will be explored. Systems testing and development will be analysed to align with techniques used in knowledge transfer and sharing in the e-world. Knowledge management opportunities through data mining and data warehousing will be explored together with the mechanics of knowledge management tools and knowledge portals. The mapping of knowledge assets with knowledge workers, critical to its implementation will be studied. Ethical and legal issues in this dynamic field of study will be considered together with what the future holds for this field of study.

Learning Outcomes

Upon successful completion of this module, students will be able to:

- Describe the difference, hierarchy and use of data, information, knowledge and wisdom.
- Describe the process of learning and the process of enquiry towards attaining knowledge and wisdom.
- Apply the knowledge life-cycle and the process of capturing, creating, storing and dissemination of knowledge using technology.
- Apply knowledge-mapping on workers to align with knowledge needs of an organisation
- Use various techniques to capture and codify knowledge.
- Use knowledge management tools and knowledge portals in decision-making.
- Use discretion in the ethical aspect of applying knowledge management.
- Stay vigilant concerning emerging trends in technology and knowledge management.

Reference Text:

Text:	Knowledge Management
Author:	Elias M. Awad & Hassan M. Ghaziri
ISBN:	0-13-034820-1
Publisher:	Pearson Education

IT 409: Project

Module Objectives

This module is very relative to each cohort's previous experience. Therefore the project details will largely be one that is a group project (the number in a group will be determined by the facilitator) that will include a complete and thorough systems analysis and design of a real-life company.

Module Synopsis

It will combine elements of all eight previous modules and will act as a capstone subject.

Reference Text:

A complete instructor's and student's project development handbook will be provided by NetAcademy