# **Business Information Systems**

## Introduction

The Business Information Systems program is a unique combination of the computing domain and the business sector that is developed to equip the students with competencies of managing IS (Information Systems), information technology, entrepreneurship, business processes, and project management. Its graduates will play an important role in delivering technological solutions to the marketplace by systematically recognizing and translating business needs into technical IT (Information Technology) requirements.

The ability to be the link between technology and the people/customer is a rare expertise in the IT industry nowadays. Combined with a focus on international quality higher education systems, embedded entrepreneurship, and innovation subjects, the program opens its graduate to endless opportunities from being a world class Information Systems professional to a well-equipped business start-up entrepreneur.

The double degree offered in partnership with Queensland University of Technology (QUT), Northumbria University in the United Kingdom, and Cologne Business School in Germany, will enhance students' ability to compete in the international marketplace. The program aims to prepare students for either immediate entry into the global marketplace or for more advanced study in either business or information technology.

### Vision

The Program of Business Information Systems strives to become a reputable and leading Information System international program for developing world-class professionals with excellent skills in both business, Information System and Technology to innovatively solve business problems.

### Mission

The missions of Business Information Systems Program are:

- The Program of Business Information Systems exists to prepare globally competitive Information System graduates through innovative and growth-oriented curriculum by meeting the stakeholder expectations, providing academic and service excellence, promoting high quality research, building strong corporate connections, and gaining international recognitions and accreditation.
- 2. The students will be equipped with technological, leadership, entrepreneurial, problem-solving skills, and analytical knowledge through high quality education and research in the area of Business Information Systems in the program.

## **Program Objectives**

The objectives of the Business Information Systems program are:

 To equip the students with the latest data science capability and knowledge on technology-based solutions of web and mobile applications, business process re-engineering, infrastructure architecture, and databases; to meet management needs for information systems and decision support.

- 2. To equip students with various thinking skills in the area of strategic planning, strong analytical, critical, and design thinking in developing innovative technology solutions.
- 3. To equip students with leadership, entrepreneurial, ethical professional skills related to the Information Systems industry.
- 4. To equip student with openness and awareness of diversity across cultures and to prepare them with effective communication skills to enter the international market as global citizens.

### **Student Outcomes**

Upon successful completion of this four-year program, students are expected to be able to:

- 1. Able to analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
- 2. Able to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Able to communicate effectively in a variety of professional contexts.
- 4. Able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. Able to function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- 6. Able to support the delivery, use, and management of information systems within an information systems environment.
- 7. Able to apply the contemporary technology in Information Systems of cloud based, mobile, analytics and Internet of Things.
- 8. Able to implement strategic planning, critical thinking, and design thinking in developing innovative technology solutions.
- 9. Able to make creative business plan and to construct, innovate and evaluate digital based business start-up.
- 10. Able to apply project management concepts such as initiation, planning, execution, control and closure of projects to practice information-based systems in an international working environment.
- 11. Able to apply interdisciplinary knowledge and skills in developing alternative solutions for problemsolving.

## **Prospective Careers of the Graduates**

A wide range of career opportunities in the information systems industry are introduced to students during their studies. The integrated curriculum is designed and developed to support students in building on their technical and non-technical skills as well as engaging with the industry. IS graduates may enter the marketplace through many career paths, including, but not limited to:

- Data Scientist
- Corporate Information Systems Designer
- Database Administrator (DBA)
- E-Business Entrepreneur
- Enterprise System Administrator

- Enterprise Resource Planning (ERP) Consultant
- Information Technology-Based Entrepreneur
- IS Project Manager
- IT/IS Consultant
- IS Auditor
- Programmer Analyst
- System Tester and Integrator

This program provides an internship program wherein they may conduct real projects as a practical study within industrial contexts. The program develops the students' abilities to be involved in professional practices, and ethical and organizational responsibilities. Furthermore, the industrial internship program provides students with real experiences in the workplace and leverages their ability to cope with the international working environment. In addition, a series of study/field trips to visit professionals and industries will be conducted to give good grounds for having a broad overview of the industry. These experiences support individual career aspirations and may provide social and professional networks.

BINUS UNIVERSITY INTERNATIONAL also provides career support for students by disseminating information on the latest job vacancies, internships, and workshops. This support service can be accessed on <u>www.binuscareer.com</u>

## Awards/Degrees

- Sarjana Komputer (S.Kom.) from BINUS UNIVERSITY
- Double Degree with Bachelor of Information Technology (B.I.T.) from Queensland University of Technology in Queensland, Australia
- Double Degree with a Bachelor of Art (B.A.) from Cologne Business School in Cologne, Germany
- Double Degree with a Bachelor of Science (BSc. Hons.) in Information Technology Management for Business from Northumbria University, Newcastle, United Kingdom.
- Double Degree with a Master of Management (M.Mngt) from Macquarie University, Australia.
- Double Degree with a Master of Commerce, specialisation in Accounting (M.Comm-Acct) from Macquarie University, Australia.
- Double Degree with a Master of Commerce, specialisation in Business Management and Organisations (M.Comm-BMO) from Macquarie University, Australia.
- Double Degree with a Master of Commerce, specialisation in Finance (M.Comm-Finance) from Macquarie University, Australia.
- Double Degree with a Master of Commerce, specialisation in Marketing (M.Comm-Mktg) from Macquarie University, Australia.
- Double Degree with a Master of Information Technology in Cyber Security (M.of IT Cyber Security) from Macquarie University, Australia.
- Double Degree with a Master of Information Systems Management (M.InfSystMngt) from Macquarie University, Australia.

- Double Degree with a Master of Science in Computer Information Systems (MSCIS) from Boston University, Massachusetts
- Double Degree with a Master of Science in Criminal Justice (MSCJ) from Boston University, Massachusetts
- Double Degree with a Master of Science in Enterprise Risk Management (MSERM) from Boston
  University, Massachusetts
- Double Degree with a Master of Science in Supply Chain Management (MSSCM) from Boston University, Massachusetts
- Double Degree with a Master of Science in Project Management (MSPM) from Boston University, Massachusetts
- Double Degree with a Master of Science in Applied Business Analytics (MSABA) from Boston University, Massachusetts
- Double Degree with a Master of Science in Global Marketing Management (MSGMM) from Boston University, Massachusetts
- Double Degree with a Master of Science in Master of Financial Management (MSFM) from Boston University, Massachusetts

Stream					
Stream	Single	Title	Double	Title	Partner
Business Information Systems	$\checkmark$	S.Kom.			
International Business			$\checkmark$	S.Kom. & B.A.	Cologne Business School, <b>Germany</b>
Information Technology Management for Business (Honors)			$\checkmark$	S.Kom. & BSc. (Hons)	Northumbria University, Newcastle, <b>United</b> <b>Kingdom</b>
Information Technology			$\checkmark$	S.Kom. & B.I.T	Queensland University of Technology, <b>Australia</b>
				S.Kom. & Master of Science in selected concentration*	Macquarie University, Australia
Master Track				S.Kom & Master of Science in selected concentration*	Boston University, Massachusetts

# **Majors and Streams**

\*) Master's degree Selection in Boston University:

- Master of Science in Financial Management (MSFM)
- Master of Science in Global Marketing Management (MSGMM)
- Master of Science in Applied Business Analytics (MSABA)
- Master of Science in Project Management (MSPM)
- Master of Science in Supply Chain Management (MSSCM)
- Master of Science in Enterprise Risk Management (MSERM)
- Master of Science in Computer Information Systems (MSCIS)
- Master of Science in Criminal Justice (MSCJ)

\*) Master's degree selection in Macquarie University:

- Master of Management (M.Mngt)
- Master of Commerce, specialisation in Business Management and Organisations (M.Comm-BMO)
- Master of Commerce, specialisation in Finance (M.Comm-Finance)
- Master of Commerce, specialisation in Accounting (M.Comm-Acct)
- Title:

#### S.Kom. (Sarjana Komputer)

B.A. (Bachelor of Arts)

B.Sc. (Hons.) (Bachelor of Science (Honors))

B.I.T. (Bachelor of Information Technology)

M.Infotech. Cyber.Sec. (Master of Information Technology in Cyber Security)

M.I.S.M. (Master of Information Systems Management)

M.Com. (Master of Commerce)

#### Single Degree Program

There are three streams available in this program in the 6th and 7th semesters. The three streams are: Business Start-up, Enterprise Systems Management, and Research in Information Systems.

#### **Double Degree Program**

The Double Degree programs are offered in partnership with Queensland University of Technology (Brisbane, Australia), Cologne Business School (Cologne, Germany) and Northumbria University (Newcastle, UK). In addition to the Sarjana Komputer (S.Kom) degree from BINUS UNIVERSITY, students who complete this program will be awarded with a Bachelor of Information Technology (B.I.T) degree from QUT, Dual Degree with a Bachelor of Science (B.Sc. - Hons) in Business Information Systems from Northumbria University, and Bachelor of Arts (B.A.) degree from Cologne Business School. The first three years of study follow a prescribed set of courses agreed between BINUS and /QUT/Cologne/NU. The final year of study is undertaken at the partner overseas campus abroad.

#### Master Track Program

The Master Track program is designed to allow students to complete their Sarjana Komputer (S.Kom) degree at BINUS UNIVERSITY INTERNATIONAL in the 7th (seven) semesters, and then continue with a graduate program for 1 - 2 years (depending on the chosen concentration) at Macquarie University or Boston University to obtain a Master degree.

#### Teaching, Learning, and Assessment Strategy

The teaching and learning processes are conducted through lectures, tutorials, practical demonstrations and activities, small projects, with students' independent study required. It is the responsibility of the lecturer of a particular course to facilitate all students' learning in the course, who can be assisted by a tutor, if necessary. By having qualified lecturers and guest lecturers from

- Master of Commerce, specialisation in Marketing (M.Comm-Mktg)
- Master of Information Technology in Cyber Security (M.of IT Cyber Security)
- Master of Information Systems Management (M.InfSystMngt)

professional industries, the students will be able to gain knowledge from both sides, i.e. theoretical and practical frameworks, through in-depth analyses of case studies, laboratories, and individual/group work projects. In addition, innovation habits will be developed through course assessments that emphasize content comprehension and innovation. Students are required to translate their selected innovative ideas into a visible design to comprehend the end-to-end innovation process. This innovation thinking approach is implemented in the teaching, learning, and assessment process of several courses throughout the program.

Learning will be an exciting experience for students as they are provided with facilities such as Internet access, computer laboratories, and library resources. Specialized laboratories or access to specialized simulation software is needed for advanced students where group and individual projects are developed. Contemporary and emerging software development tools will be available to create the most current enterprise solutions. A good quality library is provided for the students to access books, journals, and magazines for information and research activities.

All coursework is assessed through a variety of assessment tasks such as reports, presentations, assignments, individual and group projects, and thesis/final project reports, as well as mid-semester and final semester examinations. The feedback of the given assessment tasks is given in the class/tutorial, embedded in the scoring rubric/assessment criteria sheet and/or separate feedback forms. Students will also be encouraged to work together on team-oriented projects. The group skills developed in this mode are critical to a successful information systems professional. The complexity of course content in designing problem-solving methods is introduced at different levels of the study. A final project work and the written report must be submitted in year 4 (semester 8).

## **Study Completion Requirements**

To complete the program of Business Information Systems with either a single or double degree(s) at BINUS UNIVERSITY INTERNATIONAL, students must complete a minimum of 146 scu's (academic credits).

Sem	Code	Course Name	SCU	Total
	ISYS6466003	Contemporary Management Information Systems and Algorithm	8	
	ISYS6535003	Information Systems Analysis and Design	6	
1	ACCT6133003	Introduction to Financial Accounting	4	20
	Pancasila Cour	ses*		
	CHAR6013001	Character Building: Pancasila	2	
	CHAR6039001	Pancasila and Indonesian Culture	2	
	ENGL6171001	Academic English I	3	
	ENTR6091005	Project Hatchery	2	
2	ISYS6413003	Object Oriented Information Systems	6	20
	MATH6194003	Applied Research and Linear Algebra		
	ISYS6633003	Programming Mastery	7	1
3	ENTR6486005	Entrepreneurship Hatchery	3	21
3	ISYS6497003	Cloud Technology	4	- 21

## **Course Structure**

Sem	Code	Course Name	SCU	Total			
	ISYS6678003	Data Management	4				
	LANG6027001	Indonesian	2				
	ISYS6541003	Advanced Programming and Testing	6				
	CHAR6014001	Character Building: Kewarganegaraan	2				
	ENGL6172001	Academic English II	3				
	ISYS6415003	Enterprise Resource Planning Systems	6				
4	ISYS6596003	User Experience Research and Design	6	23			
	CHAR6015001	Character Building: Agama	2				
	ISYS6632003	E-Commerce, IOT and Mobile Systems	6				
	ISYS6718003	Data Analytics	4				
5	ISYS6496003	Applied Project Management	4	16			
5	ISYS6472003	Information Systems Architecture	4	10			
	ISYS6381003	Technology Consulting in the Community	4				
6	Enrichment Pro	ogram I	20	20			
7	Enrichment Pro	ogram II	20	20			
8	ISYS6268003	Thesis	6	6			
	TOTAL CREDITS 146 SCU						

\*) For CB: Pancasila course is offered for Indonesian citizen students, while Pancasila and Indonesian Culture course is offered for foreign students.

Enrichment Program I (6th Semester) & Enrichment Program II (7th Semester):

-) Students will take one of the enrichment program tracks (off campus).

# **Enrichment Track Scheme**

Treak	Semester 6						Seme	ster 7				
Track	I	RS	ENTR	CD	SA	IS	I	RS	ENTR	CD	SA	IS
1	V						V					
2	V							V				
3	V								V			
4	V										V	
5		V					V					
6		V							V			
7		V									V	
8			V				V					
9			V					V				
10			V						V			
11			V								V	
12					V			V				
13					V				V			
14					V						V	
15						V	V					
16						V		V				
17						V			V			
18						V					V	
19	V											V

Trook	Semester 6				Semester 7							
Track	Ι	RS	ENTR	CD	SA	IS	I	RS	ENTR	CD	SA	IS
20		V										V
21			V									V
22					V							V

### Notes:

- I : Certified Internship
- RS : Certified Research
- ENTR : Certified Entrepreneurship
- CD : Certified Community Development
- SA : Certified Study Abroad
- IS : Certified Independent Study

### **Enrichment Certified Internship Track**

Code	Course Name	SCU	Total			
Enrichment Program I						
ISYS6503003	Industry Experience	8				
ISYS6641003	Human Factor in Information Systems and Management	8	20			
ISYS6422003	Managing Across Cultures	4				
Enrichment Prog	jram II					
ISYS6504003	Professional Experience	8	20			
ISYS6642003	Corporate Information Systems Management	8	20			
ISYS6425003	Information Technology Service Delivery	4				

## **Enrichment Certified Entrepreneurship Track**

Code	Course Name	SCU	Total			
Enrichment Program I						
ENTR6092003	Business Model Innovation	8	20			
ENTR6588003	Product and Service Development	8	20			
ENTR6097003	Managing Team and Culture	4				
Enrichment Program II						
ENTR6093003	Sustainable Startup Creation	8	20			
ENTR6587003	Business Presentation and Negotiation	8	20			
ENTR6098003	Business Networking	4				

## **Enrichment Certified Research Track**

Code	Course Name	SCU	Total
RSCH6063003	Reasearch Exposure	8	
RSCH6602003	Formulating Research Topic and Data Collection	8	20
RSCH6076003	Research Tools and Applications	4	

\*) This list of courses can be selected as Enrichment Program I or Enrichment Program II.

Code	Course Name	SCU	Total
Enrichment Prog	gram I		
GLOB6085003	Elective Course for Study Abroad 1	4	
GLOB6086003	Elective Course for Study Abroad 2	4	
GLOB6087003	Elective Course for Study Abroad 3	4	
GLOB6088003	Elective Course for Study Abroad 4	4	
GLOB6089003	Elective Course for Study Abroad 5	4	
GLOB6043003	Elective Course for Study Abroad 1	2	
GLOB6044003	Elective Course for Study Abroad 2	2	
GLOB6117003	Elective Course for Study Abroad 3	2	
GLOB6046003	Elective Course for Study Abroad 4	2	
GLOB6047003	Elective Course for Study Abroad 5	2	
GLOB6048003	Elective Course for Study Abroad 6	2	20
GLOB6049003	Elective Course for Study Abroad 7	2	
GLOB6050003	Elective Course for Study Abroad 8	2	
GLOB6051003	Elective Course for Study Abroad 9	2	
GLOB6052003	Elective Course for Study Abroad 10	2	
GLOB6241003	Elective Course for Study Abroad 1	3	
GLOB6242003	Elective Course for Study Abroad 2	3	
GLOB6243003	Elective Course for Study Abroad 3	3	
GLOB6075003	Elective Course for Study Abroad 4	3	
GLOB6076003	Elective Course for Study Abroad 5	3	
GLOB6260003	Elective Course for Study Abroad 6	3	
GLOB6261003	Elective Course for Study Abroad 7	3	
Enrichment Prog	gram II		
GLOB6382003	Elective Course for Study Abroad 6	4	
GLOB6383003	Elective Course for Study Abroad 7	4	
GLOB6384003	Elective Course for Study Abroad 8	4	
GLOB6385003	Elective Course for Study Abroad 9	4	
GLOB6386003	Elective Course for Study Abroad 10	4	
GLOB6053003	Elective Course for Study Abroad 11	2	
GLOB6054003	Elective Course for Study Abroad 12	2	
GLOB6387003	Elective Course for Study Abroad 13	2	
GLOB6388003	Elective Course for Study Abroad 14	2	20
GLOB6389003	Elective Course for Study Abroad 15	2	
GLOB6390003	Elective Course for Study Abroad 16	2	
GLOB6391003	Elective Course for Study Abroad 17	2	
GLOB6392003	Elective Course for Study Abroad 18	2	
GLOB6393003	Elective Course for Study Abroad 19	2	
GLOB6394003	Elective Course for Study Abroad 20	2	
GLOB6395003	Elective Course for Study Abroad 8	3	
GLOB6396003	Elective Course for Study Abroad 9	3	
GLOB6397003	Elective Course for Study Abroad 10	3	

## **Enrichment Certified Study Abroad Track\***

Code	Course Name	SCU	Total
GLOB6398003	Elective Course for Study Abroad 11	3	
GLOB6399003	Elective Course for Study Abroad 12	3	
GLOB6400003	Elective Course for Study Abroad13	3	
GLOB6401003	Elective Course for Study Abroad 14	3	

\*)The elective courses for study abroad will be transferred to Binus University International's SCU systems based on credit transfer policies.

# Enrichment Certified Specific Independent Study\*

Code	Course Name	SCU	Total
MICR6033003	Course Certification I	3	
MICR6034003	Technical Skill Enrichment I	4	
MICR6035003	Industrial Project I	9	
MICR6036003	Soft Skill Enrichment I	4	
MICR6001003	Elective Course for Specific Independent Study 1	8	
MICR6002003	Elective Course for Specific Independent Study 2	8	
MICR6003003	Elective Course for Specific Independent Study 3	6	
MICR6004003	Elective Course for Specific Independent Study 4	6	
MICR6005003	Elective Course for Specific Independent Study 5	6	
MICR6006003	Elective Course for Specific Independent Study 6	5	
MICR6007003	Elective Course for Specific Independent Study 7	5	
MICR6008003	Elective Course for Specific Independent Study 8	5	
MICR6009003	Elective Course for Specific Independent Study 9	5	
MICR6010003	Elective Course for Specific Independent Study 10	4	
MICR6011003	Elective Course for Specific Independent Study 11	4	
MICR6012003	Elective Course for Specific Independent Study 12	4	
MICR6013003	Elective Course for Specific Independent Study 13	4	20
MICR6014003	Elective Course for Specific Independent Study 14	4	
MICR6015003	Elective Course for Specific Independent Study 15	3	
MICR6016003	Elective Course for Specific Independent Study 16	3	
MICR6017003	Elective Course for Specific Independent Study 17	3	
MICR6018003	Elective Course for Specific Independent Study 18	3	
MICR6019003	Elective Course for Specific Independent Study 19	3	
MICR6020003	Elective Course for Specific Independent Study 20	3	
MICR6021003	Elective Course for Specific Independent Study 21	2	
MICR6022003	Elective Course for Specific Independent Study 22	2	
MICR6023003	Elective Course for Specific Independent Study 23	2	
MICR6024003	Elective Course for Specific Independent Study 24	2	
MICR6025003	Elective Course for Specific Independent Study 25	2	
MICR6026003	Elective Course for Specific Independent Study 26	2	
MICR6027003	Elective Course for Specific Independent Study 27	2	
MICR6028003	Elective Course for Specific Independent Study 28	2	

Code	Course Name	SCU	Total
MICR6029003	Elective Course for Specific Independent Study 29	1	
MICR6030003	Elective Course for Specific Independent Study 30	1	
MICR6031003	Elective Course for Specific Independent Study 31	1	
MICR6032003	Elective Course for Specific Independent Study 32	1	

\*) This list of courses can be selected as Enrichment Program I or Enrichment Program II.

# The Table of Prerequisite for Business Information Systems Program

Course		SCU	Sem	Course Prerequisite		SCU	Sem
ISYS6541003	Advanced Programming and Testing	6	3	ISYS6633003	Programming Mastery	7	2
ISYS6678003	Data Management	4	3	MATH6194003	Applied Research and Linear Algebra	2	2
ISYS6718003	Data Analytics	4	5	ISYS6678003	Data Management	4	3
ISYS6415003	Enterprise Resource Planning Systems	6	4	ISYS6466003	Contemporary Management Information Systems & Algorithm	8	1
ISYS6632003	E-Commerce, IOT and Mobile Systems	6	4	ISYS6541003	Advanced Programming and Testing	6	3
ISYS6471003	Wearable Technology	2	5	ISYS6541003	Advanced Programming and Testing	6	3
ISYS6472003	Information Systems Architecture	4	5	ISYS6466003	Contemporary Management Information Systems & Algorithm	8	1

Student should pass all of these quality controlled courses as listed below :

No	Course Code	Course Name	Minimal Passing Grade
1	CHAR6013001	Character Building: Pancasila	В
2	ENTR6486005	Entrepreneurship Hatchery	С
3	ISYS6472003	Information Systems Architecture	С
4	ISYS6535003	Information Systems Analysis and Design	С
5	ISYS6678003	Data Management	С
6	ISYS6496003	Applied Project Management	С
7	ISYS6633003	Programming Mastery	С
8	ISYS6497003	Cloud Technology	С