

DIPLOMA IN  
PROGRAMMING

# SYALLBUS

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**IT-010-3:2016**

(APPLICATION DEVELOPMENT)

**IT-010-4:2013**

(APPLICATION SYSTEMS MODULE DEVELOPMENT)



KOLEJ SYNERGY  
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**DIPLOMA IN PROGRAMMING**  
**Subject List**

**SEMESTER 1**

AKS101	Business Accounting I
AKS102	Principle and practice of Management
AKS103	Cost Accounting
AKS104	Technical English I
AKS105	Organizational Behaviour
AKS106	Introduction to Information Technology
CA0091	Communication Skills
CA0092	interpersonal Relationships

**SEMESTER 2**

AKS201	Business Accounting II
AKS202	Technical English II
AKS203	Management Accounting
AKS204	Principles of Marketing
AKS205	Computerised Accounting Skill
AKS206	Business Communication
AST101	Statistic
CA0093	Workplace Etiquette

**SEMESTER 3**

AKS301	Microeconomics
AKS302	Human Resource Management
AKS303	Business Finance
AKS304	Investment
AKS305	Business Statistics
AKS306	Business Ethics
AET102	English

**SEMESTER 4**

AKS401	Macroeconomics
AKS402	Accounting Theory and Practices
AKS403	Accounting system and control
AKS404	Entrepreneurship
AKS405	Employability Skill
CA0094	On Job Training
ABT103	Bahasa Malaysia
AKS406	On Job Training

**SEMESTER 5**

AKS501	Final Project
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## SEMESTER 1

Code	Code Name	Credit Hour
PKS101	Application Prototype Development	4

### OBJECTIVE

To build/create application prototype that resembles the final product's user interface or application flow as per SRS..

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Interpret application prototype development requirement
- Setup local environment
- Implement application prototype mock up flow
- Conduct user interface and user experience functionality test
- Commit prototype source code



## SEMESTER 1

Code	Code Name	Credit Hour
PKS102	Application Module Development	13

### OBJECTIVE

To develop an application that functions, deployment ready, error free and as per SRS.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Interpret application module development requirement
- Setup local environment
- Plan module expected behavior
- Write module code
- Commit module source code Understand the relevance of information control and the issues involved



## SEMESTER 1

Code	Code Name	Credit Hour
PKS103	Application Module Integration	7

### OBJECTIVE

To ensure that all modules are integrated correctly, functional and ready for [system testing](#).

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Interpret module integration requirement
- Perform modules integration
- Test module integration code
- Commit module integration code



## SEMESTER 1

Code	Code Name	Credit Hour
PKS104	Development Environment Deployment	9

### OBJECTIVE

To establish an environment that is as identical to the production environment which is reliable and error free.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Deploy source code to development server
- Perform data population to development server
- Perform integration system testing.



## SEMESTER 1

Code	Code Name	Credit Hour
CAZ0091	Communication Skills	1

### OBJECTIVE

This course is to enable students to describe the requirement to communicate ideas and information clearly, organizational practices and the importance of culture in communication. In this Core Abilities (CA) shall be able to apply working language appropriately, apply oral communication and speak reasonably and understand reading materials.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Communicate effectively using appropriate language and formats as well as understand organizational practices and intercultural communication.



## SEMESTER 1

CODE	CODE NAME	CREDIT HOUR
CAZ0092	Interpersonal Relationships	1

### OBJECTIVE

This course is to enable students to describe the requirement to understand the concept of honesty and integrity, punctuality of job delivery and work in a team to complete a basic task. In this Core Abilities (CA) shall be able to demonstrate honesty and integrity, adopt work punctuality and demonstrate team cooperation.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Demonstrate good attitudes, values and behavior in the working environment





## SEMESTER 2

Code	Code Name	Credit Hour
PKS201	Application Bug Fixing	9

### OBJECTIVE

To ensure that the application developed is error free

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Interpret bug report
- Simulate bug/error scenario
- Debug application code
- Commit fixed source code



## SEMESTER 2

Code	Code Name	Credit Hour
PKS202	Application System Documentation Compilation	2

### OBJECTIVE

To compile accurate information and documents according to application module and store the system documentation in source code repository.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Interpret system documentation requirement
- Compile system documentation material
- Upload system documentation



## SEMESTER 2

Code	Code Name	Credit Hour
PKS203	Application Development Supervision	2

### OBJECTIVE

To perform supervisory skills to support operation according to company's requirements.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Confirm facilities and equipment functionality
- Prepare job schedule
- Perform unit meeting / briefing



## SEMESTER 2

CODE	CODE NAME	CREDIT HOUR
CAZ0093	WORKPLACE ETIQUETTE	2

### OBJECTIVE

This course provides students the knowledge on workplace to follow the chain of command, adhere to working guidelines, demonstrate concept of discipline and maintain good social interactions. In this Core Abilities (CA) shall be able to respond to instructions and demonstrate discipline.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Understand the chain of command and portray good workplace ethics behavior in the working environment.



## SEMESTER 2

CODE	CODE NAME	CREDIT HOUR
PBT101	Bahasa Malaysia	4

### LEARNING OBJECTIVE

This course is to enable students to master basic skills on Bahasa Malaysia and competencies communicate and speak to express ideas orally and in writing.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Knowing the sound system, the system of spelling, vocabulary and grammar of the Bahasa Malaysia
- Can hear and understand speech in a variety of everyday situations.
- Can speak in a variety of everyday situations.
- Can read and understand simple reading materials
- Can generate ideas and orally and in writing



## SEMESTER 2

CODE	CODE NAME	CREDIT HOUR
PET102	English	4

### OBJECTIVE

This course develops the students' abilities in grammar, oral skills, reading, writing and study skills.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Students will heighten their awareness of correct usage of English grammar in writing and speaking
- Students will improve their speaking ability in English both in terms of fluency and
- comprehensibility
- Students will give oral presentations and receive feedback on their performance
- Students will increase their reading speed and comprehension of academic articles
- Students will improve their reading fluency skills through extensive reading
- Students will enlarge their vocabulary by keeping a vocabulary journal
- Students will strengthen their ability to write academic papers, essays and summaries using the process approach.



### SEMESTER 3

CODE	CODE NAME	CREDIT HOUR
CAZ0094	HEALTH, SAFETY & ENVIRONMENT MONITORING	2

#### OBJECTIVE

This course provides students the knowledge and describes the requirements to identify health awareness program objectives and monitor the HSE program accomplishment.

#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- To ensure health awareness program, safety awareness program and environmental awareness program.
- To monitor all health, safety and environmental awareness programs.



### SEMESTER 3

Code	Code Name	Credit Hour
PKS301	Application Systems Programming	3

#### OBJECTIVE

To develop program for specific module of application systems.

#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assess application systems programming needs
- Prepare application systems programming environments
- Perform application systems coding
- Carryout application systems programming evaluation
- Carryout application systems programming documentation





### SEMESTER 3

Code	Code Name	Credit Hour
PKS302	Application Database Programming	2

#### OBJECTIVE

To develop database for specific module of application systems.

#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assess Database Programming needs
- Prepare Database Programming environment
- Perform Database Programming coding
- Carryout Database Programming assessment
- Carryout Database Programming documentation



### SEMESTER 3

Code	Code Name	Credit Hour
PKS303	Application Data Entry Administration	2

#### OBJECTIVE

To manage the process of input, update and maintain data in the application systems.

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#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assess data entry needs
- Prepare data entry development environment
- Administer data entry
- Carryout data entry assessment



### SEMESTER 3

Code	Code Name	Credit Hour
PKS304	Application Systems Development Administration	2

#### OBJECTIVE

To perform administration task in supporting application systems development..

#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Organise development activities
- Manage preliminary studies
- Manage systems documentation
- Perform administrative functions



### SEMESTER 3

CODE	CODE NAME	CREDIT HOUR
PST103	Statistics	3

#### OBJECTIVE

To develop server program to support systems execution.

#### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assess server programming needs
- Prepare server programming environments
- Perform server program coding
- Carryout server programming assessment
- Carryout server programming documentation



## SEMESTER 4

Code	Code Name	Credit Hour
PKS401	Infra Systems Interface Designing	2

### OBJECTIVE

To design interface for specific module of application systems.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assesses application interface designing needs
- Execute application Interface designing
- Carryout application interface designing assessment
- Carryout application interface designing documentation



## SEMESTER 4

Code	Code Name	Credit Hour
PKS402	Application Systems Functional Testing	2

### OBJECTIVE

To software testing to make sure the module is working as expected and meet system specification.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Assesses application systems functional testing needs
- Prepare application systems functional testing environments
- Perform application systems functional testing
- Carryout application systems functional testing assessment
- Carryout application systems functional testing g documentation



## SEMESTER 4

Code	Code Name	Credit Hour
PKS403	Application Systems Technical Support	2

### OBJECTIVE

To administer technical support

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Receive case ticketing
- Assess root cause
- Prepare restoration team
- Execute Restoration Plan
- Administer customer feedback



## SEMESTER 4

Code	Code Name	Credit Hour
PKS404	On Job Training	8

### OBJECTIVE

This module covers knowledge and skill Practice / On job training in industry where student need to undergo in plant training for 3 month, to be evaluate by their supervise and write the executive report.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Apply knowledge in a professional setting
- Develop professionally relevant competencies and relationships in a professional setting
- Observe and begin to understand a professional organizational culture
- Evaluate one's own performance in light of one's expressed goals and learning outcomes
- Clarify one's calling through reflection on the internship experience





## SEMESTER 5

Code	Code Name	Credit Hour
PKS501	Final Project	4

### OBJECTIVE

This module covers knowledge and skill to determine the project name, research, modification, planning analysis and proposal preparation. Process: construct the project, mechanical assembly, write and edit software and troubleshoot. Completion: documentation and presentation.

### LEARNING OUTCOME

*After completing the course, students should be able to:*

- Design and plan a project and manage the time involved to complete the project, and related report, within given time constraints.
- Source, read and critically evaluate the primary literature on the chosen topic.
- Demonstrate the ability to work independently and also to recognize the need for, and seek, appropriate academic supervision.
- Formulate and communicate a research problem or aim.
- Identify, justify and use an appropriate methodology in addressing the identified research problem.
- Identify, justify and use an appropriate methodology in addressing the identified research problem.
- Accurately record, interpret and report relevant data in a manner that addresses the research question