Southern University College

Department of Computer Science

&

Diploma in Information Technology

Project / Project I / Project II

Project Handbook

Lecturer / Supervisor: Mr. So Yong Quay

1.	Name of Course: Project
2.	Course Code: CSIS3044
3.	Name(s) of academic staff: So Yong Quay
4.	Rationale for the inclusion of the course in the programme: After study all related computer science subjects, the students should show their computer science knowledge and ability, programming skills, analysis skills and development skills to design a high-quality system software.
5.	Semester and Year offered: April

6.	Total Student Learning Time (SLT)	Face to Face				Total Guided and Independent Learning
	L = Lecture T = Tutorial P = Practical O= Others	L	T	P	O	160
		14	-	56	-	

Details of Total Guided and Independent Learning:

	Learning Activities	SLT (in hours)
1	**Lectures**	**(28)**
a	Lecture Hours (Attending Lectures) 1 * 14 = 14	14
b	Pre and Post preparation 1 * 14 = 14	14
2	**Practical**	**(84)**
a	System Design, Discussion, Validate System 3 * 14 = 42	42
b	Report Discussion 1 *14 = 14	14
c	Preparation for practical, discussion 2 * 14 = 28	28
3.	**Assessments**	**(48)**
a	Report 2 * 14 = 28	28
b	Project Presentation	10
c	Preparation for project presentation	10
	Total	**160**
	Subject Credit (160 / 40 = 4)	**4**

7.	Credit Value: 4
8.	Prerequisite (if any): System Analysis and Design(CSIS2013), Database System Design (CSIS2023), Introduction to Programming(PROG1013)
9.	Objectives

    CO1: Develop an appropriate sense of work-discipline in the planning and execution of an extended piece of work.

    CO2: Allow deeper exploration of the chosen subject area, to the extent that the student will acquire the expertise to discuss its issues authoritatively.

    CO3: Develop the student's documentary communication ability in preparing a comprehensive report on the project.

    CO4: Provide the experience of undertaking a substantial individual practical piece of work from conception to conclusion.

    CO5: Develop the ability to research, analyze, synthesize, and creatively apply what has already been studied on the scheme.

		CO6: Provide an opportunity for the student to demonstrate critical and evaluative skills.
		CO7: Allow the student to develop and demonstrate a professional outlook on and approach to the production of a significant artifact.
10.	Learning outcomes	
	On successful completion of this module, the student will be able to:	
		CLO 1: Demonstrate a range of skills, knowledge and a clear understanding of the limitations and achievements of the project.
		CLO 2: Design a product / process / artefact capable of meeting specific stated, whose scope and depth reflect the application of specialist knowledge and skills, and agreed objectives informed by appropriate research.
		CLO 3: Manage and arrange a project, including planning and scheduling the use of the time and resources, in order to bring a substantial piece of work to a successful conclusion.
		CLO 4: Evaluate critically a substantial product and the processes used in its construction.
		CLO 5: Write and generate a comprehensive professional report and technical thesis on the work done, in a suitable prescribed format.

11.	Transferable Skills:

Type of Skill	Skills development	Method for assessment
Knowledge	Lecture, class interaction and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Practical skills	Coding, projects and report	Project planning and scheduling, system analysis and design, report, coding and implementation
Scientific methods, critical thinking and problem solving skills	Projects, Report	System analysis and design, report, report, coding and implementation
Lifelong learning and information management	Projects and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Entrepreneurship and managerial skills	Projects, Report	Project planning and scheduling, system analysis and design, report, coding and implementation

12.	Teaching-learning and assessment strategy:
	• Lecture • Discussion • Project Planning and Scheduling • System Analysis and Design Skill • Coding and Implementation • Report and Documentation

	• Presentation Skill
13.	**Synopsis:** This subject is a large scale, individual piece of work, undertaken by the student under the supervision of a member of the academic staff. Starting near the beginning of the academic year involves the production of a substantial artifact and culminates in the writing of a report and a viva consisting of the presentation, demonstration and discussion of the artifact. The student is guided to develop an appropriate sense of work-discipline coupled with a professional outlook. They are expected to take responsibility for the planning and execution of an extended piece of work including the consideration of associated legal, social, ethical and professional issues. The student is able to explore in depth a chosen subject area, and thereby demonstrate the ability to research, analyze, synthesizes, and creatively apply new and existing knowledge whilst demonstrating critical and evaluative skills and professional awareness.
14.	**Mode of Delivery:** • Lecture, • Discussion • Project
15.	**Assessment Methods and Types:** • Project Planning and Scheduling - 10% • System Analysis and Design Skill - 10% • Coding and Implementation - 50% • Report and Documentation - 20% • Presentation Skill - 10%
16.	**Mapping of the course to the Programme Aims**

Programme Aims	Course Objective (CO)						
	CO1	CO2	CO3	CO4	CO5	CO6	CO7
To impart students with computer science knowledge and practical skills in ICT field.	√	√		√		√	√
To enable the students to fit into the computer science job market easily.	√	√	√	√		√	√
To prepare the students for the transition to higher education level.	√		√		√		
To provide problem-solving skill for independent and lifelong learning.	√	√		√	√		√
To develop the employability skills of the student in future employment.	√	√	√	√	√	√	√

17.	**Mapping of the course to the Programme Learning Outcomes**

Programme Learning Outcomes	Course Learning Outcomes(CLO)				
	CLO1	CLO2	CLO3	CLO4	CL05
Graduates are able to apply the knowledge of organizational and system needs in ICT field.	√				
Graduates are able to demonstrate theoretical principles, programming and technical skills of		√			

	information technology into practice and in relevant areas.							
	Graduates are responsible to the works assigned to them and able to demonstrate teamwork, interpersonal and social skills in groups or teams.							
	Graduates have good moral responsibility to carry out their duties as software coder and to work ethically in their workplace and even in society.							
	Graduates are able to communicate effectively both in written and spoken form with ICT professionals and show their leadership to lead juniors in computer applications development projects or even in management level.							
	Graduates are able to utilize relevant techniques and appropriate methodologies in analyzing problem solving, designing, implementing and managing ICT solutions and computer applications.					√		
	Graduates are able to use different ways to continue their further study, carry out research and analyze on ICT problems, and accumulate the information and knowledge for their career development.							√
	Graduates are trained on the basic programming skills, system analysis process, computer science principle and practice studies. The studies thus provide the understanding and platform for graduates to further their interests into entrepreneurship, management and design skills.				√			

18.	Content outline of the course and the SLT per topic	Lecture		Tutorial		Practical		Assessments	
		LH	P L	T H	PT	PH	PP	PA	AH
	1. Project Planning and Scheduling •Proposal •Objectives •System Requirement •Schedules	2	2			4	4		

Topic	LH	PL	TH	PT	PH	PP	AH	PA
2. System Analysis and Design • System Analysis Fundamentals • Information Analysis • Analysis Process • Use Case Diagram • Activity Diagram • Class Diagram • Sequence Diagram • State Diagram • Data Modeling	6	6			12	12		
3. System, Coding and Implementation • Designing Effective Output • Designing Effective Input • Designing the File or Database • Designing the User Interface • Designing Accurate Data-Entry Procedure • Designing the Process Control • Designing Networking Platform	4	4			20	12		
4. Writing the report and documentation	2	2			6	14	28	
5. Project Presentation							10	10
Total	14	14			42	42	38	10
Credit	4							

Note:
LH : Lecture Hours   PL: Pre and Post Preparation for Lecture
TH : Tutorial Hours   PT: Pre and Post Preparation for Tutorial
PH: Practical Hours   PP: Pre and Post Preparation for Practical
AH: Assessment Hours
PA: Pre and Post Preparation for Assessment(Assignments, Test or Final Examination)

19.
• Main references supporting the course

Schwalbe, K. Information Technology Project Management. 7th Edition. Australia: Course Technology Cengage Learning, 2014.

Pressman, R. S. Software Engineering: A Practitioner's Approach. 8th edition. New York: McGraw Hill, 2015.

• Additional references supporting the course

Kendall K.E & Kendall J.E. System Analysis and Design. 9th Edition. Upper Saddle River: Prentice Hall, 2014.

Carey, Patrick. New Perspective on HTML, CSS, and XML: Comprehensive. 4th Edition. Boston: Thomson Course Technology. 2014

Thomas M. Connolly, Carolyn E. Begg. Database Systems: A Practical Approach to Design, Implementation and Management. 6th edition. Harlow：Addison-Wesley, 2015.

Y. Daniel Liang. Introduction to JAVA PROGRAMMING. 11th Edition. Upper Saddle River: Pearson Prentice Hall, 2017.

Dennis, A. et al. Systems Analysis and Design, an object-oriented approach with UML. 5th Edition, U.S.A: John Wiley, 2015.

Vanghan, T. Multimedia Making It Work. 9th Edition. NY: McGraw Hill Osborne Media, 2014.

20.	Other additional information:

1.	Name of Course: Project I
2.	Course Code: CSIS3003
3.	Name(s) of academic staff: So Yong Quay
4.	Rationale for the inclusion of the course in the programme: After study all related information technology subjects, the students should show their information technology knowledge and ability, programming skills, analysis skills and development skills to design a high quality system software.
5.	Semester and Year offered: April

6.	Total Student Learning Time (SLT)	Face to Face				Total Guided and Independent Learning
	L = Lecture T = Tutorial P = Practical O= Others	L	T	P	O	120
		14	-	56	-	

Details of Total Guided and Independent Learning:

	Learning Activities	SLT (in hours)
1	**Lectures**	**(28)**
a	Lecture Hours (Attending Lectures) 1 * 14 = 14	14
b	Pre and Post preparation 1 * 14 = 14	14
2	**Practical**	**(70)**
a	System Design, Discussion, Validate System 3 * 14 = 42	42
b	Discussion Report 1 *14 = 14	14
c	Preparation for practical, discussion 1 * 14 = 14	14
3.	**Assessments**	**(22)**
a	System and Report 1 * 14 = 14	14
b	Presentation	8
	Total	**120**
	Subject Credit (120 / 40 = 3)	**3**

7.	Credit Value: 3
8.	Prerequisite (if any): Java Programming I, System Analysis and Design, Database Systems
9.	Objectives CO8: Develop an appropriate sense of work-discipline in the planning and execution of an extended piece of work. CO9: Allow deeper exploration of the chosen subject area, to the extent that the student will acquire the expertise to discuss its issues authoritatively. CO10: Develop the student's documentary communication ability in preparing a comprehensive report on the project. CO11: Provide the experience of undertaking a substantial individual practical piece of work from conception to conclusion. CO12: Develop the ability to research, analyze, synthesize, and creatively apply what has already been studied on the scheme.

	CO13: Provide an opportunity for the student to demonstrate critical and evaluative skills.
	CO14: Allow the student to develop and demonstrate a professional outlook on and approach to the production of a significant artifact.
10.	Learning outcomes
	On successful completion of this module, the student will be able to:
	CLO 6: Demonstrate a range of skills, knowledge and a clear understanding of the limitations and achievements of the project.
	CLO 7: Design a product / process / artefact capable of meeting specific stated, whose scope and depth reflect the application of specialist knowledge and skills, and agreed objectives informed by appropriate research.
	CLO 8: Manage and arrange a project, including planning and scheduling the use of the time and resources, in order to bring a substantial piece of work to a successful conclusion.
	CLO 9: Evaluate critically a substantial product and the processes used in its construction.
	CLO 10: Write and generate a comprehensive professional report on the work done, in a suitable prescribed format.
11.	Transferable Skills:

Type of Skill	Skills development	Method for assessment
Knowledge	Lecture, class interaction and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Practical skills	Coding, projects and report	Project planning and scheduling, system analysis and design, report, coding and implementation
Scientific methods, critical thinking and problem solving skills	Projects, Report	System analysis and design, report, report, coding and implementation
Lifelong learning and information management	Projects and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Entrepreneurship and managerial skills	Projects, Report	Project planning and scheduling, system analysis and design, report, coding and implementation

12.	Teaching-learning and assessment strategy:
	• Lecture
	• Discussion
	• Project Planning and Scheduling
	• System Analysis and Design Skill
	• Coding and Implementation
	• Report and Documentation

	• Presentation Skill
13.	**Synopsis:** This subject is a large scale, individual piece of work, undertaken by the student under the supervision of a member of the academic staff. Starting near the beginning of the academic year involves the production of a substantial artifact and culminates in the writing of a report and a viva consisting of the presentation, demonstration and discussion of the artifact. The student is guided to develop an appropriate sense of work-discipline coupled with a professional outlook. They are expected to take responsibility for the planning and execution of an extended piece of work including the consideration of associated legal, social, ethical and professional issues. The student is able to explore in depth a chosen subject area, and thereby demonstrate the ability to research, analyze, synthesizes, and creatively apply new and existing knowledge whilst demonstrating critical and evaluative skills and professional awareness.
14.	**Mode of Delivery:** • Lecture, • Discussion • Project
15.	**Assessment Methods and Types:** • Project Planning and Scheduling - 10% • System Analysis and Design Skill - 10% • Coding and Implementation - 50% • Report and Documentation - 20% • Presentation Skill - 10%
16.	**Mapping of the course to the Programme Aims**

Programme Aims	Course Objective (CO)						
	CO1	CO2	CO3	CO4	CO5	CO6	CO7
To impart students with Information Technology knowledge and practical skills in ICT field.	√				√	√	
To enable the students to fit into the Information Technology job market easily.		√	√		√	√	
To prepare the students for the transition to higher education level.				√		√	
To provide problem-solving skill for independent and lifelong learning.	√		√		√	√	√
To develop the employability skills of the student in future employment.	√			√	√	√	√

17.	**Mapping of the course to the Programme Learning Outcomes**

Programme Learning Outcomes	Course Learning Outcomes(CLO)				
	CLO1	CLO2	CLO3	CLO4	CL05
Graduates are able to apply the knowledge of organizational and system needs in ICT field.	√				
Graduates are able to demonstrate theoretical principles, programming and technical skills of		√			

information technology into practice and in relevant areas.			2	2	
Graduates are responsible to the works assigned to them and able to demonstrate teamwork, interpersonal and social skills in groups or teams.					
Graduates have good moral responsibility to carry out their duties as software coder and to work ethically in their workplace and even in society.					
Graduates are able to communicate effectively both in written and spoken form with ICT professionals and show their leadership to lead juniors in computer applications development projects or even in management level.					
Graduates are able to utilize relevant techniques and appropriate methodologies in analyzing problem solving, designing, implementing and managing ICT solutions and computer applications.				√	
Graduates are able to use different ways to continue their further study, carry out research and analyze on ICT problems, and accumulate the information and knowledge for their career development.					√
Graduates are trained on the basic programming skills, system analysis process, computer science principle and practice studies. The studies thus provide the understanding and platform for graduates to further their interests into entrepreneurship, management and design skills.			√		

18.	Content outline of the course and the SLT per topic	Lecture		Tutorial		Practical		Assessments	
		LH	P L	T H	PT	PH	PP	PA	AH
	1. Project Planning and Scheduling •Proposal •Objectives •System Requirement •Schedules	2	2			6	2	2	

Topic	LH	PL	TH	PT	PH	PP	AH	PA
2. **System Analysis and Design** • System Analysis Fundamentals • Information Analysis • Analysis Process • Use Case Diagram • Activity Diagram • Class Diagram • Sequence Diagram • State Diagram • Data Modeling	4	4			16	4	4	
3. **Prototyping, Coding and Implementation** • Designing Effective Output • Designing Effective Input • Designing the File or Database • Designing the User Interface • Designing Accurate Data-Entry Procedure • Designing the Process Control • Designing Networking Platform	6	6			28	5	6	
4. **Writing the report and documentation**	2	2			6	3	2	
Presentation								8
Total	14	14			56	14	14	8
Credit	3							

Note:
LH : Lecture Hours   PL: Pre and Post Preparation for Lecture
TH : Tutorial Hours   PT: Pre and Post Preparation for Tutorial
PH: Practical Hours   PP: Pre and Post Preparation for Practical
AH: Assessment Hours
PA: Pre and Post Preparation for Assessment(Assignments, Test or Final Examination)

19.

• Main references supporting the course

Schwalbe, K. Information Technology Project Management. 7th Edition. Australia: Course Technology Cengage Learning, 2014.

Pressman, R. S. Software Engineering: A Practitioner's Approach. 8th edition. New York: McGraw Hill, 2015.

• Additional references supporting the course

Kendall K.E & Kendall J.E. System Analysis and Design. 9th Edition. Upper Saddle River: Prentice Hall, 2014.

Carey, Patrick. New Perspective on HTML, CSS, and XML: Comprehensive. 4th Edition. Boston: Thomson Course Technology. 2014

Thomas M. Connolly, Carolyn E. Begg. Database Systems: A Practical Approach to Design, Implementation and Management. 6th edition. Harlow：Addison-Wesley, 2015.

Y. Daniel Liang. Introduction to JAVA PROGRAMMING. 11th Edition. Upper Saddle River: Pearson Prentice Hall, 2017.

Dennis, A. et al. Systems Analysis and Design, an object-oriented approach with UML. 5th Edition, U.S.A: John Wiley, 2015.

Vanghan, T. Multimedia Making It Work. 9th Edition. NY: McGraw Hill Osborne Media, 2014.

20.	Other additional information:

1.	Name of Course: Project II
2.	Course Code: CSIS3103
3.	Name(s) of academic staff: So Yong Quay
4.	Rationale for the inclusion of the course in the programme: After study all related software engineering and information technology subjects , the students should show their software engineering knowledge and ability, programming skills, analysis skills and development skills to design a high quality system software.
5.	Semester and Year offered: August

6.	Total Student Learning Time (SLT)	Face to Face				Total Guided and Independent Learning
	L = Lecture T = Tutorial P = Practical O= Others	L	T	P	O	120
		14	-	56	-	

Details of Total Guided and Independent Learning:

	Learning Activities	SLT (in hours)
1	**Lectures**	**(28)**
a	Lecture Hours (Attending Lectures) 1 * 14 = 14	14
b	Pre and Post preparation 1 * 14 = 14	14
2	**Practical**	**(70)**
a	System Design, Discussion, Validate System 3 * 14 = 42	42
B	Discussion Report 1 *14 = 14	14
C	Preparation for practical, discussion 1 * 14 = 14	14
3.	**Assessments**	**(22)**
A	Report, System Design 1 * 14 = 14	14
B	Presentation	8
	Total	**120**
	Subject Credit (120 / 40 = 3)	**3**

7.	Credit Value: 3
8.	Prerequisite (if any): CSIS3003 Project I
9.	Objectives CO1: Develop an appropriate sense of work-discipline in the planning and execution of an extended piece of work. CO2: Allow deeper exploration of the chosen subject area, to the extent that the student will acquire the expertise to discuss its issues authoritatively. CO3: Develop the student's documentary communication ability in preparing a comprehensive report on the project. CO4: Provide the experience of undertaking a substantial individual practical piece of work from conception to conclusion. CO5: Develop the ability to research, analyze, synthesize, and creatively apply what has already been studied on the scheme. CO6: Provide an opportunity for the student to demonstrate critical and evaluative

		skills.	
	CO7:	Allow the student to develop and demonstrate a professional outlook on and approach to the production of a significant artifact.	

10.	Learning outcomes
	On successful completion of this module, the student will be able to:
	CLO 11: Demonstrate a range of skills, knowledge and a clear understanding of the limitations and achievements of the project.
	CLO 12: Design a product / process / artefact capable of meeting specific stated, whose scope and depth reflect the application of specialist knowledge and skills, and agreed objectives informed by appropriate research.
	CLO 13: Manage and arrange a project, including planning and scheduling the use of the time and resources, in order to bring a substantial piece of work to a successful conclusion.
	CLO 14: Evaluate critically a substantial product and the processes used in its construction.
	CLO 15: Write and generate a comprehensive professional report on the work done, in a suitable prescribed format.

11.	Transferable Skills:

Type of Skill	Skills development	Method for assessment
Knowledge	Lecture, class interaction and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Practical skills	Coding, projects and report	Project planning and scheduling, system analysis and design, report, coding and implementation
Scientific methods, critical thinking and problem solving skills	Projects, Report	System analysis and design, report, report, coding and implementation
Lifelong learning and information management	Projects and independent learning.	Project planning and scheduling, system analysis and design, report, coding and implementation
Entrepreneurship and managerial skills	Projects, Report	Project planning and scheduling, system analysis and design, report, coding and implementation

12.	Teaching-learning and assessment strategy:
	• Lecture
	• Discussion
	• Project Planning and Scheduling
	• System Analysis and Design Skill
	• Coding and Implementation
	• Report and Documentation

	• Presentation Skill	
13.	Synopsis: This subject is a large scale, individual piece of work, undertaken by the student under the supervision of a member of the academic staff. Starting near the beginning of the academic year involves the production of a substantial artifact and culminates in the writing of a report and a viva consisting of the presentation, demonstration and discussion of the artifact. The student is guided to develop an appropriate sense of work-discipline coupled with a professional outlook. They are expected to take responsibility for the planning and execution of an extended piece of work including the consideration of associated legal, social, ethical and professional issues. The student is able to explore in depth a chosen subject area, and thereby demonstrate the ability to research, analyze, synthesizes, and creatively apply new and existing knowledge whilst demonstrating critical and evaluative skills and professional awareness.	
14.	Mode of Delivery: • Lecture, • Discussion • Project	
15.	Assessment Methods and Types: • Coding and Implementation - 60% • Report and Documentation - 20% • Presentation and Practical Skill - 20%	

16	Mapping of the course to the Programme Aims							

.	Programme Aims	Course Objective (CO)						
		CO1	CO2	CO3	CO4	CO5	CO6	CO7
	To impart students with information technology knowledge and practical skills in ICT field.	√				√	√	
	To enable the students to fit into the information technology job market easily.		√	√		√	√	
	To prepare the students for the transition to higher education level.				√		√	
	To provide problem-solving skill for independent and lifelong learning.	√		√		√	√	√
	To develop the employability skills of the student in future employment.	√			√	√	√	√

17	Mapping of the course to the Programme Learning Outcomes					

·	Programme Learning Outcomes	Course Learning Outcomes(CLO)				
		CLO1	CLO2	CLO3	CLO4	CL05
	Graduates are able to apply the knowledge of organizational and system needs in ICT field.	√				
	Graduates are able to demonstrate theoretical principles, programming and technical skills of information technology into practice and in relevant areas.		√			

Description					
Graduates are responsible to the works assigned to them and able to demonstrate teamwork, interpersonal and social skills in groups or teams.					
Graduates have good moral responsibility to carry out their duties as software coder and to work ethically in their workplace and even in society.					
Graduates are able to communicate effectively both in written and spoken form with ICT professionals and show their leadership to lead juniors in computer applications development projects or even in management level.					
Graduates are able to utilize relevant techniques and appropriate methodologies in analyzing problem solving, designing, implementing and managing ICT solutions and computer applications.				√	
Graduates are able to use different ways to continue their further study, carry out research and analyze on ICT problems, and accumulate the information and knowledge for their career development.					√
Graduates are trained on the basic programming skills, system analysis process, computer science principle and practice studies. The studies thus provide the understanding and platform for graduates to further their interests into entrepreneurship, management and design skills.			√		

18.	Content outline of the course and the SLT per topic	Lecture		Tutorial		Practical		Assessments	
		LH	P L	T H	PT	PH	PP	PA	AH
	1. Quality Assurance Through Software Engineering	2	2			4	2	2	
	2. Supervision of Project: Coding, Implementation and Testing • Designing Effective Output • Designing Effective	6	6			30	4	8	

Input							
• Designing the File or Database							
• Designing the User Interface							
• Designing Accurate Data-Entry Procedure							
• Designing the Process Control							
• Designing Networking Platform							
• Constructing the System							
• Testing and Evaluation							
• Demonstration							
• Adaptation							
3. Writing the Final report and documentation	4	4			14	5	4	
4. Project Presentation	2	2			8	3		8
Total	14	14			56	14	14	8
Credit	3							

Note:
LH : Lecture Hours   PL: Pre and Post Preparation for Lecture
TH : Tutorial Hours   PT: Pre and Post Preparation for Tutorial
PH: Practical Hours   PP: Pre and Post Preparation for Practical
AH: Assessment Hours

PA: Pre and Post Preparation for Assessment(Assignments, Test or Final Examination)

19.
• Main references supporting the course

Schwalbe, K. Information Technology Project Management. 7th Edition. Australia: Course Technology Cengage Learning, 2014.

Pressman, R. S. Software Engineering: A Practitioner's Approach. 8th edition. New York: McGraw Hill, 2015.

• Additional references supporting the course

Kendall K.E & Kendall J.E. System Analysis and Design. 9th Edition. Upper Saddle River: Prentice Hall, 2014.

Carey, Patrick. New Perspective on HTML, CSS, and XML: Comprehensive. 4th Edition. Boston: Thomson Course Technology. 2014

Thomas M. Connolly, Carolyn E. Begg. Database Systems: A Practical Approach to Design, Implementation and Management. 6th edition. Harlow：Addison-Wesley, 2015.

Y. Daniel Liang. Introduction to JAVA PROGRAMMING. 11th Edition. Upper Saddle River: Pearson Prentice Hall, 2017.

Dennis, A. et al. Systems Analysis and Design, an object-oriented approach with UML. 5th Edition, U.S.A: John Wiley, 2015.

Vanghan, T. Multimedia Making It Work. 9th Edition. NY: McGraw Hill Osborne Media, 2014.

20.	Other additional information:

Introduction

The project is intended to be a practical exercise which as far as is possible, is representative of the environment that you will encounter during your supervised work experience. It consists of three stages. There are clearly defined deliverables required for each stage.

Team Structure

You will be placed into teams. It is not possible to accommodate specific requests for team composition, nor can changes be made to the teams once they have been decided, again, this closely resembles your period of supervised work experience where you will have little or no say in who you work with.

Rationale

In general, the project is considered to be hard work, but also very rewarding. A large number of students returning to the final year have indicated that the project was the most useful second year subject in preparing them for their "year out".

Operation

Each team will be supervised by lecturer to oversee their work. The lecturer concerned is NOT there to tell you what to do, but instead, to offer guidance and assistance where necessary. This is **YOUR** project not the project of the lecturer. <u>**You are required to meet with your lecturer at least once a week.**</u>
The problems which do occur with the project tend to relate to team members who do not pull their weight, consequently, attendance at these weekly meetings is **compulsory**. Non attendance at a meeting must be explained to the satisfaction of the lecturer.

Project Structure

Basic composition of the project.

Stage 1:   Project Initiation

Stage 2:   Investigation & Analysis

Stage 3:   Requirements System, System and Final Report for Project I

Stage Dates: 2nd Semester

Project Initiation

      Due Date:

Investigation & Analysis

      Due Date:

Requirements System, System and Final Report for Project I

      Due Date:

Please note that the above dates are **not** negotiable, they are to be rigidly adhered to.

Team Working

For each stage, a stage manager will be responsible for allocating work, recording progress, producing minutes of team meetings and submitting the completed stage deliverables to your supervisor according to the schedule. The minutes of your meeting(s) and a weekly progress report must be submitted to your lecture **during** your weekly meeting with him. The stage manager is also **required** to alert the lecturer to any problems regarding lack of effort by any team member(s), **but not until every effort has been made to resolve the matter within the team.**

Deliverables

General Comments

1.   No hand drawn/written documentation is acceptable.

2.   Team meetings must be held at least once per week.

3.   The whole team must meet with the project lecturer at least once per week.

4.   ERMs (Use UML instead)

5.   The involvement of a real user in your project will enable a more realistic product to be produced.

Specific Requirements Stage 1.

Project Initiation

Financial justification for project with team details and responsibilities

Deliverables

1. Project Topic or Title

2. Rationale for project choice

3. Background research

4. Literature review

5. An outline of the scope of the intended system

6. A financial justification for project

7. A list of team members, together with their hand phone number, email and a copy of each members' CV.

8. An outline of the duties of each member for each stage

9. A plan of your team's projected work for stages 2 and 3.

10. A plan of how your team is intending to monitor and control stages 2 and 3.

11. Minutes of all team meetings held during this stage.

12. Project Plan

Specific Requirements Stage 2.

Investigation & Analysis.

<p align="center">Preliminary Systems Analysis and Logical Design Documentation.</p>

<p align="center"><u>Deliverables</u></p>

1.	Data Flow Diagram (Use UML Use Case), containing all processes, defining the boundaries of the application.

2.	An ERM containing an appropriate number of entities.

3.	A description of, and rationale for, the choice of prototype/system processes, supported by appropriate (Use Case Description).

4.	A set of appropriate Use Class, Activity and Sequence Diagrams for the entities affected by the process to be prototyped

5.	Evidence of monitoring and control of actual work against planned work.

Specific Requirements System, System and Final Report for Project I: Stage 3.

Requirements System, System and Final Report for Project I

<u>Deliverables</u>

System

1.   A description of the rationale for your database tables and indexes (2 - 3 sentences for each table and index)

2.   System demonstration. The system should consist of:
a)   All databases, tables, forms, queries and reports are developed to a reasonable level of functionality (to be agreed with your lecturer)
b)   The system should be as complete as possible.

3.   A system user guide.

4.   A presentation, to your lecturer, of your findings after reviewing the result of the system demonstration.

5.   Evidence of monitoring and control of actual work against planned work.

Final Report

- It will be around 10,000 words in length(not including appendices)
- The contents of report may include:
    - Title Page
    - Abstract (Compulsory)
    - Acknowledgement (Optional)
    - Contents Page
    - Introduction
    - Literature Review
    - Methodology
    - Design
    - Implementation
    - Testing
    - Evaluation
    - Recommendations (Optional)
    - Conclusion
    - References
    - Appendices

The Project Reports should contain the above contents, and some Project Reports will also contain additional content such as user manuals, software documentation, plans for future work, etc.

Presentation

Each student is required to present their artefacts to their Supervisor and other Reader. The purpose of this is to allow the assessors to see the product and to discuss it with the student. This gives the student an opportunity to demonstrate a good grasp of their work. The presentation is designed to allow students to explain their project, demonstrate or otherwise show off their artefacts, defend the decisions they took in carrying out the work, and generally discuss their projects with the assessors. In some cases the Supervisor and other Reader will invite a third-party along to the viva.

What to hand in

At the end of the project, the student must submit the following physical items:

1. TWO copies of printed Project Report
2. TWO copies of Technical Report
3. TWO copies of disks containing all electronic artefacts, project report and technical report (in Word and PDF format).
4. TWO copies (unless this is not possible) of any artefacts that can not be put onto a disk (e.g. original sketches, models, etc.)

Each item (this includes CDs/DVDs) MUST be clearly labelled with your name, course, the year the project started and an indication of what is included. In addition each disk should include a readme file giving any instructions (such as passwords and installation directions).

NOTE THAT IT IS YOUR RESPONSIBILITY TO ENSURE THAT THE SUBMITTED DISKS FILES ARE VIRUS FREE.