

**Payap University**  
**Bachelor of Science (Computer Information Systems)**  
**Faculty of Science**  
**1st Semester / Academic Year 2010**

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**1. Course**      **ICS341 Systems Analysis and Design**      3 (3-0-6) credits  
Prerequisite: *ICS220 Data Structures and Algorithm Analysis*

**Course Description**

This course covers the roles of the systems analyst in combining elements of typical business systems into an operational system. Major considerations include analyzing requirements, building the system specification and design and using techniques for presenting results of a case study. Course project(s) and presentation are required.

**2. Instructor's Name**

Instructor:    Dr. Seung-Hwan Kang (Full Time Instructor)  
Email:        seung\_h@payap.ac.th  
Office:        PC314, Graduate School Building  
Tel.:         (053) 851478-86 Ext. 7221

Lecture Time: Tuesday      14.00 - 15.30, PC319  
   Thursday      14.00 - 15.30, PC319

**3. Course Objectives**

On completion of this course the students will be able to:

- Have an understanding of systems development life cycle.
- Learn how to model business processes and be able to translate business requirements into technical solutions.
- Learn the tools, techniques and principles of process modeling and data modeling.
- Learn the concepts of object-oriented analysis and design.
- Gain hands on experience in designing small systems.

**4. Reading Material**

**4.1 Required textbook(s)**

- Valacich, J., George, J. and Hoffer, J. (2006) *Essentials of Systems Analysis and Design*, 3<sup>rd</sup> Edition, Pearson International Edition (required)

**4.2 Supplementary reading materials**

- Shelly, G., Cashman, T. and Rosenblatt, H. (2007) *Systems Analysis and Design*, 7<sup>th</sup> Edition, Thomson Course Technology (recommended)
- Kendall, K. and Kendall, J. (2006) *Systems Analysis and Design*, 7<sup>th</sup> Edition, Pearson Prentice Hall (recommended)

Any readings and references are recommended only and are not intended to be an exhaustive list. Students are encouraged to use the library catalogue and databases to locate additional readings.

## 5. Course Syllabus

A proposed lecture schedule for the subject is as follows:

Week	Unit/ Chapter*	Content	Number of hours (No. of lecture hours /Lab)	Teaching and learning activities
1	1	The Systems Development Environment	3 / 0	
2 - 3	2	Managing the Information Systems Project	6 / 0	
4	3	Systems Planning and Selection	3 / 0	
5	4	Determine System Requirements	3 / 0	Assignment # 1 Due
6 - 7	5	Structuring System Requirements: Process Modeling	6 / 0	
8	6	Structuring System Requirements: Conceptual Data Modeling	3 / 0	
<b>MidTerm Exam</b>				
9	7	Selecting the Best Alternative Design Strategy	3 / 0	Assignment #2 Due
10	8	Designing the Human Interface	3 / 0	
11	9	Designing Databases	3 / 0	
12	10	Systems Implementation and Operation	3 / 0	Assignment #3 Due
13	Appendix A	Object-Oriented and Operation	3 / 0	
14	Appendix B	Agile Methodologies	3 / 0	
15		Course Review		Assignment #4 Due
<b>Final Exam</b>				

- Changes to the above schedule will be posted via eLearning space <http://elearning.payap.ac.th/>.
- Any information posted to the web site is deemed to have been notified to all students.
- Lecture slides are provided as PowerPoint presentations via eLearning space.
- All other relevant materials are available on the e-Learning website.
- The chapter listed refers to those in the textbook by Valacich, J., George, J. and Hoffer, J. (2006)\*

## 6. Evaluation

6.1. Assignments	30 %
6.2. Mid-term Examination	30 %
6.3. Final Examination	40 %
<b>Total</b>	<b>100 %</b>

## 7. Evaluation Criteria

- 7.1. Plagiarism is NOT tolerated in this course. Any students found plagiarizing will receive 0.
- 7.2. Students who have less than 80% attendance CANNOT take the final exam.
- 7.3. The evaluation is based on the *Payap University Grading Scale* shown as follows:

<b>Range</b>	<b>Letter Grade</b>	<b>Score (4 point scale)</b>
100-80	<b>A</b>	4
79-75	<b>B+</b>	3.5
74-70	<b>B</b>	3
69-65	<b>C+</b>	2.5
64-60	<b>C</b>	2
59-55	<b>D+</b>	1.5
54-50	<b>D</b>	1
49-0	<b>F</b>	0

- 7.4. The following “letter grades” may also be given:

- “I” Incomplete
- “W” Withdraw
- “IP” Course work in progress
- “U” Audit
- “P” Pass
- “NP” Not Pass