

Systems Analysis & Design

Leon Andretti Abdillah

01

Introduction to SA&D

2016

Lecturer's Info

Name	Leon Andretti Abdillah
Position	Associate Professor (Lektor Kepala) Head of Monitoring Academic and Information Systems Editor in Chief of BiKOM, ICIBA, SOSEIC, SEMNASTIK, SHaP-SITI, SENTIKOM, SEMNASPOR Reviewer of AJIS, SISFO, INKOM, IJASEIT, etc.
Faculty	Computer Science (Ilmu Komputer)
Department (Study Program)	Information Systems (Sistem Informasi)
Courses	<ol style="list-style-type: none">1. Algorithms and Data Structures2. Algorithms & Programming3. Corporate IS Management Lanjut4. Data Structures and Algorithms5. Database6. Human Resource Information Systems (HRIS)7. Knowledge Management Systems8. Programming Concepts9. Research Methods10. <u>Systems Analysis and Design</u>

Syllabus-SAP 1/2

1. Part One - PLANNING PHASE

1. The Systems Analyst and Information Systems Development
2. Project Selection and Management

2. Part Two - ANALYSIS PHASE

1. Requirements Determination
2. Use Case Analysis
3. Process Modeling
4. Data Modeling

Syllabus-SAP 2/3

3. Part Three - DESIGN PHASE

1. Moving Into Design
2. Architecture Design
3. User Interface Design
4. Program Design
5. Data Storage Design

4. Part Four - IMPLEMENTATION PHASE

1. Moving Into Implementation
2. Transition To The New System
3. The Movement To Objects

Syllabus-SAP 3/3

5. Presentations per group

Each group consist of 3-6 persons

6. Final Exam

Sources

- blog.binadarma.ac.id/mleonaa → Teaching → Systems Analysis and Design
- elearning.binadarma.ac.id
- leonabdillah.wordpress.com → Teaching → Systems Analysis and Design

Assessment Component (Komponen Penilaian)

- Class activities 20% [Attendance, Questionaire]
- Middle exam 20% [MidTest]
- Reports 20% [Assignments, Blogs, Presentation]
- Final exam 40% [FinalTest]
- Total 100%

Rules

- Every student must enroll or register, shown by KRS
- Attendance $\geq 80\%$ of 16weeks
- Late tolerance /meeting = 15 minutes
- Keep your mobile devices silent all the time in the class
- Keep your volume silent all the time in the class
- Casual uniform for daily class
- At final exam, each student must wear white shirt and black

Assessment Scores (Skor Penilaian)

Score Penilaian

No.	Total Score	Nilai	Bobot
1	085 – 100	A	4
2	070 – 084	B	3
3	055 – 069	C	2
4	040 – 054	D	1
5	000 - 039	E	0

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
																A	A	A	A
													B	B	B				
										C	C	C							
							D	D	D										
E	E	E	E	E	E	E													

Data and Information

- **Data**

- Raw facts (fakta-fakta mentah) such as an employee's name and number of hours worked in a week, inventory part numbers or sales orders.

- **Information**

- A collection of facts organized in such a way that they have additional value beyond the value of the facts themselves.

Data Processing

Data

\$35,000 12 Units \$12,000 J.
Jones Western Region
\$100,000 100 Units 35 Units

Data Processing

Information

Salesperson: J. Jones Sales
Territory: Western Region
Current Sales: 147 Units =
\$147,000

Information Systems

- Information systems (IS) in organizations capture and manage data to produce useful information that supports an organization and its employees, customers, suppliers, and partners (Whitten and Bentley, 2007).
- An information system combines information technology, people, and data to support business requirements (Shelly and Rosenblatt, 2011).

Information Technology

- Information technology (IT) refers to the combination of hardware, software, and services that people use to manage, communicate, and share information (Shelly and Rosenblatt, 2011).

System Analyst

- The systems analyst serves as a facilitator or coach, bridging the communications gap that can naturally develop between the nontechnical system owners and users and the technical system designers and builders (Whitten and Bentley, 2007).

Homework

1. Prepare your SocialMedia ID (**FaceBook**)
2. Set a **group discussion** consist of 2-3 students for small class (≤ 20), 4-5 students for medium class (21-35), or 6-8 students for large class (> 36)
3. Prepare your blog using **WordPress**, create a page/laman “SA&D” or “Systems Analysis and Design” or “A&PS” or “Analisis dan Perancangan Sistem”
4. Create an account in Cloud repository (**DropBox**)
5. Develop your **team project theme** based on the information given from several sources (journals, conference proceedings, books, or master theses). You may use one of these sources: a) GOOGLE SCHOLAR (<http://scholar.google.com/>) or b) MICROSOFT ACADEMIC SEARCH (<http://academic.research.microsoft.com/>)

References

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- Abdillah, L. A. (2006). Perancangan basisdata sistem informasi penggajian. *Jurnal Ilmiah MATRIK*, 8(2), 135-152.
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- Pressman, R. S. (2010). *Software Engineering: A Practitioner's Approach* (7th ed.). New York, US: McGraw-Hill.
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- Valacich, J. S., George, J. F., & Hoffer, J. A. (2012). *Essentials of Systems Analysis and Design* (5th ed.): Pearson Education, Inc.
- Whitten, J. L., & Bentley, L. (2007). *Systems analysis and design methods* (7th ed.): McGraw-Hill Professional.