**Rencana Pembelajaran Semester (RPS)**

Dokumen Rencana Pembelajaran Semester, didokumentasikan secara sendiri untuk seluruh MK

Untuk prodi-prodi yang ikut akreditasi internasional, dokumen RPS menjadi acuan untuk dipindahkan ke dalam template yang sesuai dengan permintaan badan akreditasi tsb.

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| A picture containing object  Description generated with high confidence | **INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)**  **FAKULTAS TEKNOLOGI INDUSTRI DAN REKAYASA SISTEM**  **DEPARTEMEN TEKNIK SISTEM DAN INDUSTRI**  **PROGRAM STUDI SARJANA TEKNIK INDUSTRI** | | | | | | | | **Kode Dokumen** |
| **RENCANA PEMBELAJARAN SEMESTER** | | | | | | | | | |
| **MATA KULIAH (MK)** | | | **KODE** | **Rumpun MK** | | **BOBOT (sks)** | | **SEMESTER** | **Tgl Penyusunan** |
| Perancangan Sistem Informasi Bisnis | | | TI… |  | | **T=3** | **P=0** | VIII | 29 Januari 2024 |
| **OTORISASI** | | | **Pengembang RPS** | | **Koordinator RMK** | | | **Ketua PRODI** | |
| Bambang Syairudin | | Lantip Trisunarno | | | **Nurhadi Siswanto, S.T., MSIE., Ph.D.** | |
| **Capaian Pembelajaran (CP)** | **CPL-PRODI yang dibebankan pada MK** | | | |  | | | | |
| CPL-1 | Mampu menunjukkan sikap dan karakter yang mencerminkan: ketakwaan kepada Tuhan Yang Maha Esa, etika dan integritas, berbudi pekerti luhur, peka dan peduli terhadap masalah sosial dan lingkungan, menghargai perbedaan budaya dan kemajemukan, menjunjung tinggi penegakan hukum, mendahulukan kepentingan bangsa dan masyarakat luas, melalui kreatifitas dan inovasi, ekselensi, kepemimpinan yang kuat, sinergi, dan potensi lain yang dimiliki untuk mencapai hasil yang maksimal.​ | | | | | | | |
| CPL-2 | Mampu mengkaji dan memanfaatkan ilmu pengetahuan dan teknologi dalam rangka mengaplikasikannya pada bidang rekayasa sistem industri, serta mampu mengambil keputusan secara tepat dari hasil kerja sendiri maupun kerja kelompok dalam bentuk laporan tugas akhir atau bentuk kegiatan pembelajaran lain yang luarannya setara dengan tugas akhir melalui pemikiran logis, kritis, sistematis dan inovatif. ​ | | | | | | | |
| CPL-3 | Mampu mengelola pembelajaran diri sendiri, dan mengembangkan diri sebagai pribadi pembelajar sepanjang hayat untuk bersaing di tingkat nasional, maupun internasional, dalam rangka berkontribusi nyata untuk menyelesaikan masalah dengan mengimplementasikan teknologi informasi dan komunikasi dan memperhatikan prinsip keberlanjutan serta memahami kewirausahaan berbasis teknologi. ​ | | | | | | | |
| CPL-4 | Mampu untuk memahami prinsip-prinsip keteknikan secara menyeluruh berdasarkan pengetahuan basic science, ilmu pengetahuan alam, dan/atau material, teknologi informasi dan keteknikan lainnya​ | | | | | | | |
| CPL-5 | Mampu untuk merencanakan, menyelesaikan, dan mengevaluasi suatu proyek dengan memperhatikan batasan yang diberikan untuk mencapai efisiensi dan efektivitas yang optimum.​ | | | | | | | |
| CPL-6 | Mampu untuk menyelesaikan permasalahan kompleks melalui perancangan sistem industri terintegrasi yang terdiri dari manusia, material, informasi, peralatan, modal, dan energi dalam perspektif *supply* *chain* dengan mempertimbangkan prinsip keberlanjutan | | | | | | | |
| CPL-7 | Mampu untuk bekerja dalam tim multidisiplin dan multibudaya ​ | | | | | | | |
| **Capaian Pembelajaran Mata Kuliah (CPMK)** | | | |  | | | | |
| CPMK1 | Mahasiswa dapat memahami manfaat & tipe sistem informasi dalam bisnis global dan hubungan antara strategi, organisasi dan sistem informasi | | | | | | | |
| CPMK-2 | Mahasiswa dapat memahami informasi yang dibutuhkan untuk membangun suatu sistem informasi | | | | | | | |
| CPMK-3 | Mahasiswa dapat memahami infrastruktur informasi dan teknologi | | | | | | | |
|  | CPMK-4 | Mahasiswa dapat merancang pemodelan aliran data berdasarkan bisnis proses serta membangun properti database dan hubungan | | | | | | | |
|  | CPMK-5 | Mahasiswa dapat merancang sebuah sistem informasi dan *interface* yang efektif dari suatu desain aplikasi sistem informasi | | | | | | | |
|  |  | **Matrik CPL – CPMK**   |  |  |  |  | | --- | --- | --- | --- | |  | CPL-3 | CPL-4 | CPL-7 | | CPMK-1 |  |  | V | | CPMK-2 |  | V |  | | CPMK-3 |  | V |  | | CPMK-4 | V |  | V | | | | | | | | |
| **Deskripsi Singkat MK** | Kompleksitas dan volume data yang tinggi menjadi tantangan bagi perusahaan atau organisasi dalam situasi persaingan saat ini. Oleh karena itu, diperlukan suatu sistem informasi yang dapat mendukung pengambilan keputusan secara efisien dan efektif agar tetap kompetitif. Kuliah ini memberikan wawasan kepada mahasiswa terkait sistem informasi dalam lingkup suatu perusahaan atau bisnis. Topik yang dibahas dalam mata kuliah ini meliputi konsep dasar sistem informasi baik yang berbasis manual maupun komputer, siklus hidup sistem, sistem informasi manajemen, basis data, perancangan sistem informasi bisnis dan aplikasi. | | | | | | | | |
| **Bahan Kajian: Materi Pembelajaran** | a. Introduction to Information System (Global e-Business and Collaboration)  b. Information Systems, Organizations, and Strategy  c. System, Roles and Development methodologies  d. E-Business and E- Commerce  e. IT infrastructure  f. Database design & modelling (DFD, ERD)  g. Designing Effective Input and Output | | | | | | | | |
| **Pustaka** | **Utama :** | |  | | | | | | |
| * 1. Laudon, K. And Laudon, J.P. (2009). Essential of Management Information System, 12 edition, Prentice Hall.   2. Kendall, K. E., & Kendall, J.E. Systems Analysis and Design, Prentice Hall, 2010.   3. McLeod, R. Jr and Schell, G. (2007) Management Information System, Prentice Hall.   4. Rainer, R.K, Cegielski, C.G. (2011) Introduction to Information Systems : Supporting and Transforming Business, 3rd edition, John Willey and Sons.   5. Powel, G. (2006). Beginning Database Design, Wiley Publishing, Inc.   6. Cronoles,M.J., Schardt, J.A., UML 2 for Dummies, Wiley Publishing Inc.   7. Valacich, J. S., George, J. F., & Hoffer, J. A. Essentials of Systems Analysis & Design, Prentice Hall, 2009. | | | | | | | | |
| **Pendukung :** | |  | | | | | | |
|  | | | | | | | | |
| **Dosen Pengampu** | Bambang Syairudin, Lantip Trisunarno, Arief Rahman, Atikah Aghdhi Pratiwi, Mar’atus Sholihah | | | | | | | | |
| **Matakuliah syarat** | Tidak ada mata kuliah prasyarat | | | | | | | | |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
| 1 | CPMK 1 | Introduction to Information Systems : Global Business | 1. The role of information systems in business today 2. Perspectives on information systems 3. Contemporary approaches to information systems | Students can understand:   1. how information systems are transforming business and their crucial roles for running and managing a business 2. the concept of information systems including how it works, management, organization, and technology components 3. the contemporary assets of information systems to   ensure the | * SGD * DL | (1) chap 1 | Written Assessment (Mid- Term Exam)  Exercise Quiz |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  |  |  | system  provides value  for a business |  |  |  |
| 2 | CPMK 1 | Global e-Business and collaboration | 1. Business   processes and information systems   1. Types of   information systems   1. Systems for collaboration and social business 2. The information systems function in business | Students can understand:   1. the concept of business process and its relationship with information systems 2. how systems serve the different management groups in a business 3. How systems that link the enterprise improve organizational performance 4. the role of the information systems in a   business | * SGD * DL | (1) chap 2 | Written Assessment (Mid- Term Exam)  Exercise Quiz |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
| 3 | CPMK 1 | Information  systems, organizations, and strategy | 1. Organizations   and information systems   1. How information systems impact organizations and businesses 2. Using information systems to achieve competitive advantage | Students can  understand:   1. The features of an organization to build and use information systems 2. The impact of information systems on organizations 3. How the   information systems help businesses use synergies, core competencies, and network- based strategies to achieve competitive  advantage | * Lecture * Discussion/ Presentati on * Individual Learning/ Assignmen t | (1) chap 3 | Written Assessment (Mid-  Term Exam) Exercise Quiz |
| 4 | CPMK 2 | System, roles and development methodologies | 1. Roles of system analyst | Students can understand:  1. the pivotal roles of | * Lecture Discussion/ Presentati   on | (2) Chap 1 & 2 | Written Assessment (Mid- Term Exam)  Exercise Quiz |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  |  | 1. Systems   development life cycle   1. Human-   computer interaction   1. Three main forces interacting to shape organizations | system  analyst   1. the concept of systems development life cycle 2. human-   computer interaction   1. organizations and their members are systems and that analysts need to take a   systems perspective. |  |  |  |
| 5 | CPMK 1,  2 | E-Business and E- Commerce | 1. Definition and forms of E- Business and E- Commerce 2. Key concept in E-Commerce 3. Revenue   Models of E- commerce | Students understand about:   1. Definition and forms of E- Business and E-Commerce 2. Key concept in E-Commerce 3. Revenue   Models of E-  commerce | * SGD * DL |  | Written Assessment (Mid- Term Exam)  Exercise Quiz |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
| 6 | CPMK 3 | IT infrastructure | 1. IT infrastructure   and its components   1. Current trends in hardware and software platforms 2. Challenges of managing IT infrastructure and management solutions | Students can  understand:   1. IT infrastructure and its components 2. The current trends in hardware and software platforms   5. Challenges of managing ITS infrastructure and management  solutions | * SGD * DL | (1) chap 5 | Exercise  Quiz  Written Assessment (Mid- Term Exam) |
| 7 | CPMK 4 | Information requirement analysis (1) “Data Flow Diagram (DFD)” | 1. The concept of data flow diagram including its symbols, elements, and common  modelling rules | Students can understand and practically use data flow diagram and unified modelling language. | * Lecture * Discussion/ Presentati on | (2) Chap 4-6 | Exercise Response  Written Assessment (Mid- Term Exam) |
| 8 | CPMK  1,2,3,4 | Mid-Exam (EBTS) |  |  |  |  | Written test |
| 9 | CPMK 4 | Information  requirement analysis (2) | 1. The basic  concept of | 1. Students can  understand the concept of | * Lecture | (2) Chap 4-6 | Group Project  Written Assessment (Final Exam) |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  | “Database design &  Modelling” | database and  database model   1. Data analysis 2. The entity, attribute,   relationship concept | database and  database model and its components. | * Discussion/   Presentati on |  |  |
| 10 | CPMK 5 | Designing Effective Output | 1. Understand the objective for effective output design 2. Relate output content to output methods inside and outside the organizational context | Stundents are able to:   1. Understand the objective for effective output design 2. Relate output content to output methods inside and outside the   organizational context | * Lecture * Discussion/ Presentati on | (2) Chap 7-10 | Group Project  Written Assessment (Final Exam) |
| 11 | CPMK 5 | Designing Effective Input | 1. Design functional input forms for users of business systems. 2. Design engaging input displays   for users of | Students are able to:  1. Design functional input forms for users of business  systems. | * Lecture * Discussion/ Presentati on | (2) Chap 7-10 | Group Project  Written Assessment (Final Exam) |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  |  | information  systems.   1. Design useful input forms for people interacting on the Web. 2. Design useful input pages for users of intranets, the Web, smartphones, and tablets. | 1. Design   engaging input displays for users of information systems.   1. Design useful input forms for people interacting on the Web.   1. Design useful input pages for users of intranets, the Web, smartphones,  and tablets. |  |  |  |
| 12 | CPMK 5 | Guest Lecture: User Interface Design | 1. Design issues 2. The user   interface design process   1. User analysis 2. User interface prototyping 3. Interface   evaluation | Students can undestand:   1. General   design principle for user interface design   1. the different interaction styles of user interface and   their use | * Lecture * Discussion/ Presentati on | (2) Chap 7-10 | Group Project  Written Assessment (Final Exam) |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  |  |  | 1. the use   graphical and textual information presentation   1. the principle   activities in |  |  |  |
| 13 | CPMK 5 | Case Study:   1. Human   Resource Information System   1. Marketing Information System | 1. Human   Resource Information System   1. Marketing Information System | Students are able to:   1. Understand about example of Human Resource Information System 2. Understand about example of Marketing Information   System | SGD DL | (2) chap 11-14 | Group Project  Written Assessment (Final Exam) |
| 14 | CPMK 5 | Case Study:   1. Supply Chain Information System 2. Financial   Information System | 1. Supply Chain Information System 2. Financial   Information System | Students are able to:  1. Understand about example of Supply Chain Information  System | SGD DL | (2) chap 11-14 | Group Project  Written Assessment (Final Exam) |

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| Minggu | CPMK | Topik | Sub Topik (pustaka) | Capaian pembelajaran  (sub CPMK) | Metode Pembelajaran | Sarana Pembelajaran | Bentuk Asessment |
|  |  |  |  | 2. Understand  about example of Financial Information  System |  |  |  |
| 15 | CPMK 5 | Presentation of  Final Project |  |  | Presentation |  | Group Project |
| 16 | CPMK 4,5 | Final Examination | - |  |  |  | Written test |

1. **Bentuk assessment dan keterkaitannya dengan CPMK (*Assessment Method and CLO*)**

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| **No.** | **CPMK** | Bobot CPMK | **Bentuk Assessment** | **Bobot setiap assessment** |
| 1 | CPMK 1 | 27% | Exercise | 10% |
|  |  |  | Quiz | 5% |
|  |  |  | Mid-exam (EBTS) | 12% |
| 2 | CPMK 2 | 13% | Exercise | 4% |
|  |  |  | Quiz | 4% |
|  |  |  | Mid-exam (EBTS) | 5% |
| 3 | CPMK 3 | 7% | Mid-exam (EBTS) | 4% |
|  |  |  | Quiz | 3% |
| 4 | CPMK 4 | 13% | Mid-exam (EBTS) | 4% |
|  |  |  | Exercise | 4% |
|  |  |  | Final Examination | 5% |
| 5 | CPMK 5 | 40% | Group Project | 30% |
|  |  |  | Final Examination | 10% |

**Catatan :**

1. **Capaian Pembelajaran Lulusan PRODI (CPL-PRODI)** adalah kemampuan yang dimiliki oleh setiap lulusan PRODI yang merupakan internalisasi dari sikap, penguasaan pengetahuan dan ketrampilan sesuai dengan jenjang prodinya yang diperoleh melalui proses pembelajaran.
2. **CPL yang dibebankan pada mata kuliah** adalah beberapa capaian pembelajaran lulusan program studi (CPL-PRODI) yang digunakan untuk pembentukan/pengembangan sebuah mata kuliah yang terdiri dari aspek sikap, ketrampulan umum, ketrampilan khusus dan pengetahuan.
3. **CP Mata kuliah (CPMK)** adalah kemampuan yang dijabarkan secara spesifik dari CPL yang dibebankan pada mata kuliah, dan bersifat spesifik terhadap bahan kajian atau materi pembelajaran mata kuliah tersebut.
4. **Sub-CP Mata kuliah (Sub-CPMK)** adalah kemampuan yang dijabarkan secara spesifik dari CPMK yang dapat diukur atau diamati dan merupakan kemampuan akhir yang direncanakan pada tiap tahap pembelajaran, dan bersifat spesifik terhadap materi pembelajaran mata kuliah tersebut.
5. **Indikator penilaian** kemampuan dalam proses maupun hasil belajar mahasiswa adalah pernyataan spesifik dan terukur yang mengidentifikasi kemampuan atau kinerja hasil belajar mahasiswa yang disertai bukti-bukti.
6. **Kriteria Penilaian** adalah patokan yang digunakan sebagai ukuran atau tolok ukur ketercapaian pembelajaran dalam penilaian berdasarkan indikator-indikator yang telah ditetapkan. Kreteria penilaian merupakan pedoman bagi penilai agar penilaian konsisten dan tidak bias. Kreteria dapat berupa kuantitatif ataupun kualitatif.
7. **Bentuk penilaian:** tes dan non-tes.
8. **Bentuk pembelajaran:** Kuliah, Responsi, Tutorial, Seminar atau yang setara, Praktikum, Praktik Studio, Praktik Bengkel, Praktik Lapangan, Penelitian, Pengabdian Kepada Masyarakat dan/atau bentuk pembelajaran lain yang setara.
9. **Metode Pembelajaran:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, dan metode lainnya yg setara.
10. **Materi Pembelajaran** adalah rincian atau uraian dari bahan kajian yg dapat disajikan dalam bentuk beberapa pokok dan sub-pokok bahasan.
11. **Bobot penilaian** adalah prosentasi penilaian terhadap setiap pencapaian sub-CPMK yang besarnya proposional dengan tingkat kesulitan pencapaian sub-CPMK tsb., dan totalnya 100%.
12. TM=Tatap Muka, PT=Penugasan terstruktur, BM=Belajar mandiri.