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|  | **UNIVERSITAS SUMATERA UTARA (USU)**  **FAKULTAS TEKNIK**  **DEPARTEMEN TEKNIK ELEKTRO** | | | | | | | | **Kode Dokumen** |
| **RENCANA PEMBELAJARAN SEMESTER** | | | | | | | | | |
| **MATA KULIAH (MK)** | | | **KODE** | **Rumpun MK** | **BOBOT (sks)** | | **SEMESTER** | **Tgl Penyusunan** | |
| **Pengetahuan Lingkungan dan K3** | | | USU4100  TEE4147 |  | **2** |  |  | 7 AGUSTUS 2022 | |
| **OTORISASI / PENGESAHAN** | | | **Dosen Pengembang RPS** | | **Koordinator RMK** | | **Ka Prodi** | | |
| Ir. Hendra Zulkarnain, MT | | Ir. Hendra Zulkarnain, MT | | Suherman, ST., M.Comp., Ph.D | | |
| **Capaian Pembelajaran** | | **CPL-PRODI yang dibebankan pada MK** | | |  | | | | |
| CPL-1 | Mampu menerapkan pengetahuan matematika, ilmu pengetahuan alam/atau material, teknologi informasi dan kerekayasaan untuk mendapatkan pemahaman menyeluruh tentang prinsip-prinsip Teknik Elektro. | | | | | | |
| CPL-2 | Mampu mendesain komponen, sistem dan/atau proses untuk memenuhi kebutuhan yang diharapkan oleh masyarakat dengan dihadapkan pada batasan realistik yang meliputi aspek hukum, ekonomi, lingkungan, sosial, politik, kesehatan dan keselamatan, keberlanjutan. | | | | | | |
| CPL-3 | Mampu mendesain eksperimen laboratorium dan/atau lapangan serta menganalisis dan mengartikan data untuk memperkuat penilaian teknik khususnya dalam bidang Teknik Elektro. | | | | | | |
| CPL-4 | Mampu menyelesaikan permasalahan teknik khususnya dalam bidang Teknik Elektro secara bertanggungjawab dan memenuhi etika profesi. | | | | | | |
| CPL-5 | Mampu menerapkan metode, keterampilan dan perangkat teknik modern yang diperlukan untuk praktek profesi Teknik Elektro. | | | | | | |
| CPL-6 | Mampu berkomunikasi secara efektif, baik lisan maupun tulisan. | | | | | | |
| CPL-7 | Mampu mengevaluasi tugas-tugas dalam batasan yang ada secara disiplin dan menyeluruh. | | | | | | |
| CPL-8 | Mampu untuk bekerja dalam tim lintas disiplin dan multikultural serta global internasional. | | | | | | |
| CPL-9 | Mampu untuk bertanggung jawab kepada masyarakat dan mematuhi etika profesi dalam menyelesaikan permasalahan Teknik Elektro. | | | | | | |
| CPL-10 | Memiliki kapasitas pembelajaran sepanjang hayat termasuk akses pengetahuan yang relevan tentang isu-isu terkini. | | | | | | |
| CPL-11 | Mampu mengidentifikasi potensi daerah di Sumatera Utara dan menerapkan inovasi, metode, keterampilan, dan perangkat teknik elektro yang relevan untuk mengembangkan potensi daerah tersebut. | | | | | | |
| CPL-12 | Mampu mendesain sistem dan/atau proses untuk memanfaatkan energi baru dan terbarukan sebagai sumber energi listrik alternatif dari potensi sumber daya lokal dan nasional dengan wawasan global. | | | | | | |
| **Capaian Pembelajaran Mata Kuliah (CPMK)** | | |  | | | | |
| CPMK 1 | Memahami konsep pengetahuan lingkungan dan K3 serta arti pentingnya lingkungan dan K3 bagi kegiatan keteknikan | | | | | | |
| CPMK 2 | Memahami dan mengetahui masalah lingkungan dan K3 | | | | | | |
| CPMK 3 | Memahami upaya-upaya untuk mencegah/mengatasi masalah lingkungan dan masalah k3 akibat kerja atau kegiatan keteknikan | | | | | | |
| CPMK 4 | Mampu mengaplikasikan arti kesadaran, sikap, peranserta dan keahlian dalam pengelolaan lingkungan hidup dan K3 dalam kegiatan keteknikan. | | | | | | |
| **Peta CPL – CPMK** | | |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **CPL 01** | **CPL 02** | **CPL 03** | **CPL 04** | **CPL 05** | **CPL 06** | **CPL 07** | **CPL 08** | **CPL 09** | **CPL 10** | **CPL 11** | **CPL 12** | | CPMK 1 | **V** | **V** |  |  |  |  |  |  |  |  |  |  | | CPMK 2 | **V** | **V** |  |  |  |  |  |  |  |  |  |  | | CPMK 3 |  |  |  |  |  |  |  |  | **V** | **V** |  |  | | CPMK 4 |  |  |  |  |  |  |  |  | **V** | **V** |  |  | | | | | | | | |
| **Diskripsi Singkat MK** | | Mata kuliah Pengetahuan Lingkungan dan K3 membahas masalah lingkungan hidup dan K3 yang dihadapi dan yang timbul akibat kerja/kegiatan keteknikan serta manajemen mengatasi masalah tersebut. | | | | | | | |
| **Bahan Kajian:** Materi pembelajaran | | Pembangunan berkelanjutan, Tujuan Mempelajari Ilmu Lingkungan, Pengertian Lingkungan, Komponen/Unsur Lingkungan Hidup, Fungsi Lingkungan Hidup Bagi Manusia, Masalah Lingkungan, Pengelolaan Lingkungan Hidup, Daya tampung lingkungan, Azas 1 Sampai Azas 14, Pandangan manusia terhadap lingkungan , Pendekatan Antroposentris, Pendekatan Altruistis, Pemikiran Secara Holistis, Pengertian Ekologi, Hubungan Ekologi Dengan Lingkungan Hidup, Pembagian Ekologi, Organisasi Kehidupan, Taksonomi, Pengertian Ekosistem dan Komponen Ekosistem, Jenis-Jenis Ekosistem, Hubungan Antar Organisme, Pengertian Amdal, Hal-Hal Yang Dikaji Dalam Amdal dan Kaitannya Dengan Izin Usaha/Kegiatan, Guna Amdal, Ka-Andal, Andal, RKL, RPL, Dokumen Ringkasan Eksekutif, Prosedur Amdal, Penyusun dan Yang Terlibat Dalam Amdal, Ukl dan Upl, Tujuan Mempelajari K3, Pilosofi K3, Sejarah K3, Konsep K3, Pengertian K3, Peraturan K3, Tujuan Penerapan K3, Definisi Kecelakaan Kerja, Klasifikasi Kecelakaan Kerja, Dampak Kecelakaan Kerja , Cedera Akibat Kecelakaan Kerja, Klasifikasi Cedera, Defenisi Rate, Faktor Penyebab Terjadinya Kecelakaan Kerja, Teori Penyebab Kecelakaan Kerja, Contoh Kasus Kece;akaan Kerja, Pengertian Penyakit Akibat Perja: Penyebab Penyakit Akibat Perja, Jenis-Jenis Penyakit Akibat Kerja, Faktor Penyebab Penyakit Akibat Kerja, Diagnosis Penyakit Akibat Kerja, Pencegahan Penyakit Akibat Kerja, Analisis Resiko Terjadinya Kecelakaan Kerja, Pengendalian Kemungkinan Terjadinya Kecelakaan Kerja, Pengelompokan potensi bahaya berdasar kategori umum, identifikasi bahaya, pengendalian resiko, Langkah menghilangkan / mengamankan / mengendalikan sumber bahaya atau gejala yang dapat menimbulkan kecelakaan kerja, LOTO (Lock Out Tag Out), Sumber Energi Berbahaya, Worksafe Permit, Defenisi kebakaran dan segitiga api, bahan bakar, oksigen (uadara), panas (titik nyala), klasifikasi kebakaran, penanganan kebakaran, evakuasi, Teori ergonomi: pengertian ergonomi, kenyamanan kerja, interaksi manusia-mesin, anthropometri, desain ergonomi, ekonomi gerak ergonomi, Latar belakang SMK3, pengertian SMK3, manajemen K3, tujuan SMK3, kebijakan manajemen, penerapan SMK3 | | | | | | | |
| **Pustaka** | | **Utama:** |  | | | | | | |
| 1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | | | | | | | |
| **Pendukung:** |  | | | | | | |
| 1. Undang undang, Peraturan Pemerintah dan Peraturan Menteri RI tentang Lingkungan Hidup dan K3 2. ILO, “Keselamatan dan Kesehatan Kerja”, Jakarta, 2013 | | | | | | | |
| **Dosen Pengampu** | |  | | | | | | | |
| **Matakuliah syarat** | |  | | | | | | | |

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| **Mg Ke-** | **Kemampuan akhir tiap tahapan belajar (Sub-CPMK)** | **Penilaian** | | **Bantuk Pembelajaran;**  **Metode Pembelajaran;**  **Penugasan Mahasiswa;**  **[ Estimasi Waktu]** | | **Materi Pembelajaran**  **[Pustaka]** | **Bobot Penilaian (%)** |
| **Indikator** | **Kriteria & Teknik** |
| **(1)** | **(2)** | **(3)** | **(4)** | **Tatap Muka(5)** | **Daring (6)** | **(7)** | **(8)** |
| 1 | Mahasiswa memahami pengertian pembangunan berkelanjutan, tujuan mempelajari ilmu lingkungan, pengertian lingkungan, komponen/unsur lingkungan hidup, fungsi lingkungan hidup bagi manusia, masalah lingkungan, pengelolaan lingkungan hidup | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Pengetahuan Lingkungan: Pembangunan Berkelanjutan, Tujuan Mempelajari Ilmu Lingkungan, Pengertian Lingkungan, Komponen/Unsur Lingkungan Hidup, Fungsi Lingkungan Hidup Bagi Manusia, Masalah Lingkungan, Pengelolaan Lingkungan Hidup  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 2 | Mahasiswa memahami azas ilmu lingkungan dan daya lingkungan (azas 1 sampai 7). | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Azas Ilmu Lingkungan dan Daya Lingkungan: Azas 1 Sampai Azas 7  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 3 | Mahasiswa menguasai azas ilmu lingkungan (azas 8 sampai azas 14), daya lingkungan:, heositas/daya lenting/daya dukung, kaitan daya lingkungan dengan sekitar | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Azas Ilmu Lingkungan (Lanjutan) dan Daya Lingkungan: Azas 8 Sampai Azas 13, Heositas/Daya Lenting/Daya Dukung, Kaitan Daya Lingkungan Dengan Sekitar  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 4 | Mahasiswa memahami beberapa teori dan pengertian dalam ilmu lingkunagn hidup. | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Beberapa Pengertian Dalam Ilmu Lingkungan Hidup: Lingkungan Hidup, Pengelolaan Lingkungan Hidup, Sumber Daya, Daya Dukung Lingkungan, Konservasi Sumber Daya Alam, Pencemaran Lingkungan, Pelestarian Fungsi dan Daya Dukung Lingkungan Hidup, Daya Tampung Lingkungan hidup  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 5 | Mahasiswa memahami hubungan manusia dengan lingkungan hidup dalam beberapa pendekatan. | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Manusia dan Lingkungan Hidup: Hubungan Manusia dan Lingkungan , Pendekatan Antroposentris, Pendekatan Altruistis, Pemikiran Secara Holistis  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 6 | Mahasiswa memahami perkembangan teori ekologi dan ekosistem. | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Teori ekologi dan ekosistem: pengertian ekologi, hubungan ekologi dengan lingkungan hidup, pembagian ekologi, organisasi kehidupan, taksonomi, pengertian ekosistem dan komponen ekosistem, jenis-jenis ekosistem, hubungan antar organisme  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 7 | Mahasiswa memahami pengertian AMDAL dan hal-hal yang dikaji dalam AMDAL dan kaitannya dengan izin usaha/kegiatan. | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Pengertian AMDAL, hal-hal yang dikaji dalam AMDAL dan kaitannya dengan izin usaha/kegiatan, guna AMDAL, KAANDAL, ANDAL, RKL, RPL, dokumen ringkasan eksekutif, prosedur AMDAL, penyusun dan yang terlibat dalam AMDAL, UKL dan UPL  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 8% |
| 8 | UJIAN TENGAH SEMESTER |  |  |  |  |  |  |
| 9 | Mahasiswa memaha,i teori pengantar K3: tujuan mempelajari K3, pilosofi K3, sejarah K3, konsep K3, pengertian K3, peraturan kK, tujuan penerapan K3, Contoh Kasus Kecelakaan Kerja | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Pengantar K3: Tujuan Mempelajari K3, Pilosofi K3, Sejarah K3, Konsep K3, Pengertian K3, Peraturan K3, Tujuan Penerapan K3, contoh kasus K3  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 10 | Mahasiswa memahami definisi kecelakaan kerja, klasifikasi kecelakaan kerja, dampak kecelakaan kerja , cedera akibat kecelakaan kerja, klasifikasi cedera, defenisi rate, faktor penyebab terjadinya kecelakaan kerja, teori penyebab kecelakaan kerja, human error | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Kecelakaan Akibat Kerja: Definisi Kecelakaan Kerja, Klasifikasi Kecelakaan Kerja, Dampak Kecelakaan Kerja , Cedera Akibat Kecelakaan Kerja, Klasifikasi Cedera, Defenisi Rate, Faktor Penyebab Terjadinya Kecelakaan Kerja, Teori Penyebab Kecelakaan Kerja, Human error  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 8% |
| 11 | Mahasiswa memahami pengertian penyakit pkibat perja: penyebab penyakit pkibat perja, jenis-jenis penyakit akibat kerja, faktor penyebab penyakit akibat kerja, diagnosis penyakit akibat kerja, pencegahan penyakit akibat kerja | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Penyakit Akibat Kerja: Pengertian Penyakit Pkibat Perja: Penyebab Penyakit Pkibat Perja, Jenis-Jenis Penyakit Akibat Kerja, Faktor Penyebab Penyakit Akibat Kerja, Diagnosis Penyakit Akibat Kerja, Pencegahan Penyakit Akibat Kerja  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 12 | Mahasiswa memahami teori analisis resiko dan pengendalian resiko: analisis resiko terjadinya kecelakaan kerja, pengendalian kemungkinan terjadinya kecelakaan kerja | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Analisis Resiko dan Pengendalian Resiko: , Pengendalian Kemungkinan Terjadinya Kecelakaan Kerja, Pengelompokan potensi bahaya berdasar kategori umum, identifikasi bahaya, pengendalian resiko, Langkah menghilangkan / mengamankan / mengendalikan sumber bahaya atau gejala yang dapat menimbulkan kecelakaan kerja, LOTO (Lock Out Tag Out), Sumber Energi Berbahaya, Worksafe Permit  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 8% |
| 13 | Mahasiswa memamahi defenisi kebakaran dan segitiga api: segitiga api, bahan bakar, oksigen (uadara), panas (titik nyala), klasifikasi kebakaran, penanganan kebakaran, evakuasi | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Defenisi Kebakaran dan Segitiga Api: Segitiga Api, Bahan Bakar, Oksigen (Uadara), Panas (Titik Nyala), Klasifikasi Kebakaran, Penanganan Kebakaran, Evakuasi  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 14 | Mahasiswa memahami pengertian ergonomi, kenyamanan kerja, interaksi manusia-mesin, anthropometri, desain ergonomi, ekonomi gerak ergonomi | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Ergonomi: Pengertian Ergonomi, Kenyamanan Kerja, Interaksi Manusia-Mesin, Anthropometri, Desain Ergonomi, Ekonomi Gerak Ergonomi  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 15 | Mahasiswa memahami latar belakang SMK 3, pengertian SMK 3, manajemen K3, smk3, tujuan SMK 3, kebijakan manajemen, penerapan SMK 3 | 1. *The accuracy in providing the information required* 2. *The student’s fluency in reading the memo (spelling, intonation, and speed)* 3. *The correctness of the student’s answers* | **Kriteria:**  *Marking Scheme*  **Bentuk:**  *Worksheet* (Non-Tes)   1. *Reading the memo provided.* 2. *Responding to the opening questions given.* 3. *Completing the table (problem-solution) according to the information in the memo.* 4. *Finding the word or phrase with similar meaning (synonym) according to the information in the memo.*   *Classifying the words or phrases with the correct headings.* | BM [(1x(2x60”)]  **Kegiatan:**   1. *Reviewing the previous lessons.* 2. *Reading the added learning materials.* 3. *Recording the presence.* 4. *Responding to opening questions in the ‘Discussion Forum’ section.* 5. *Submitting the assigned tasks.*   PT [(1x(2x60”)]  **Task 3:**  *Restating the information obtained in the form of an a-150-words paragraph.*  **Moda (*Learning Management System*):**  [elearning@usu.ac.id](mailto:elearning@usu.ac.id) | TM [(1x(2x50”)]  **Kegiatan:**   1. *Making notes of the learning materials explained.* 2. *Responding to the questions or instructions given.* 3. *Completing all the provided exercises individually.* 4. *Discussing the exercises completed.*   **Media:**  *Power Point Presentation (PPT)*  *Zoom Meeting*  *Audio Recording*  *English Handout*  **Metode Pembelajaran:**   1. *Online Lecture* 2. *Discussion* 3. *Self-Paced*   *Learning* | **Pokok Bahasan:**  Sistem Manajemen Kesehatan dan Keselamatan Kerja (SMK3): Latar Belakang SMK3, Pengertian SMK3, Manajemen K3, SMK3, Tujuan SMK3, Kebijakan Manajemen, Penerapan SMK3  **Referensi:**   1. Singh. Y. K, “Environment Science”, New Age International (P) Ltd., Publishers, New Delhi, 2006 2. Michael Allaby, “Basics of Environmental Science”, Routledge, London, 1996 | 7% |
| 16 | UJIAN AKHIR SEMESTER |  |  |  |  |  |  |
|  | Total | | | | | | **100** |