|  |  |  |
| --- | --- | --- |
|  | **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** |
| Proteksi Sistem Tenaga | **DTE4258E** |  | **2** |  |  | 5 SEPTEMBER 2022 |
| **OTORISASI / PENGESAHAN** | **Dosen Pengembang RPS** | **Koordinator RMK** | **Ka Prodi** |
| Syiska Yana, ST.,MT | Ir. Zulkarnaen Pane, 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 | Kemampuan memahami dan menganalisa fungsi proteksi, jenis-jenis gangguan pada sistem tenaga listrik, pencegahan gangguan dan komponen-komponen sistem proteksi |
| CPMK 2 | Kemampuan memahami dan menganalisa fungsi dan mekanisme kerja rele proteksi |
| CPMK 3 | Kemampuan memahami dan menganalisa fungsi dan mekanisme kerja pemutus tenaga |
| CPMK 4 | Kemampuan memahami dan menganalisa fungsi dan mekanisme kerja transformator arus |
| **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 | v | v | v |  |  |  |  |  |  |  |
| CPMK 2  | v | v | v | v | v |  |  |  |  |  |  |  |
| CPMK 3 | v | v | v | v | v |  |  |  |  |  |  |  |
| CPMK 4 | v | v | v | v | v |  |  |  |  |  |  |  |

 |
| **Diskripsi Singkat MK** | Mata kuliah Proteksi Sistem Tenaga membahas tentang: definisi proteksi, fungsi proteksi, jenis-jenis gangguan pada sistem tenaga listrik, pencegahan gangguan dan komponen-komponen sistem proteksi, rele (relays) proteksi, pemutus tenaga, dan transformator arus. |
| **Bahan Kajian:** Materi pembelajaran | Definisi dan fungsi proteksi, jenis-jenis dan pencegahan gangguan pada sistem tenaga listrik, komponen-komponen sistem proteksi, rele proteksi, rele arus lebih, rele tegangan, rele differensial, rele urutan fasa negatif, rele daya balik, rele jarak, pemutus tenaga, dan transformator arus |
| **Pustaka** | **Utama:** |  |
| P.M. Anderson, “Power System Protection”, A John Wiley & Sons, Inc., Publication, NY, 1998 |
| **Pendukung:** |  |
| J. Lewis Blackburn, Thomas J. Domin, “ Protective Relaying Principles and Application”, CRC Press, Taylor&Francis Group, NY, 2014 |
| **Dosen Pengampu** | Syiska Yana, ST.,MT |
| **Matakuliah syarat** | Dasar Teknik Elektro, Matematika Teknik, Rangkaian Listrik |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 mampu memahami definisi proteksi dan fungsi proteksi | 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 | 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:**Definisi proteksi dan fungsi proteksi**Referensi:****1, 2 dan lainnya** | 5% |
| 2 | Mahasiswa memahami dan menganalisa jenis-jenis gangguan dan pencegahan gangguan pada sistem tenaga listrik | 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 | 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:**Jenis-jenis dan pencegahan gangguan pada sistem tenaga listrik**Referensi:****1, 2 dan lainnya** | 5% |
| 3 | Mahasiswa memahami dan menguasai komponen-komponen sistem proteksi | 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 | 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:**Komponen-komponen sistem proteksi**Referensi:****1, 2 dan lainnya** | 5% |
| 4 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele proteksi | 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 | 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:**Rele proteksi**Referensi:****1, 2 dan lainnya** | 5% |
| 5 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele arus lebih | 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 | 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:**Rele arus lebih**Referensi:****1, 2 dan lainnya** | 5% |
| 6. | Mahasiswa mampu memahami dan menganalisis karakteristik rele arus lebih dan pemasangan rele arus lebih | 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 | 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:**Rele arus lebih**Referensi:****1, 2 dan lainnya** |  |
| 7 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele tegangan | 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 | 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:**Rele tegangan**Referensi:****1, 2 dan lainnya** | 5% |
| 8 | UJIAN TENGAH SEMESTER |  |  |  |  |  |  |
| 9 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele differensial | 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 | 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:**Rele differensial**Referensi:****1, 2 dan lainnya** | 5% |
| 10 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele urutan fasa negatif | 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 | 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:**Rele urutan fasa negatif**Referensi:****1, 2 dan lainnya** | 5% |
| 11 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele daya balik | 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 | 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:**Rele daya balik**Referensi:****1, 2 dan lainnya** | 5% |
| 12 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja rele jarak | 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 | 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:**Rele jarak**Referensi:****1, 2 dan lainnya** | 5% |
| 13 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja macam-macam rele jarak | 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 | 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:**Rele jarak**Referensi:****1, 2 dan lainnya** |  |
| 14 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja pemutus tenaga | 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 | 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:**Pemutus tenaga**Referensi:****1, 2 dan lainnya** | 5% |
| 15 | Mahasiswa mampu memahami dan menganalisa fungsi dan kerja transformator arus | 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 | 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:**Transformator arus**Referensi:****1, 2 dan lainnya** | 5% |
| 16 | UJIAN AKHIR SEMESTER |  |  |  |  |  |  |
|  | Total  | **100** |