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**Department of Electrical Engg.**

**College of Engineering**

**University of Salahaddin**

**Subject: Transmission & Distribution of Electrical Power**

**Course Book – *For* Year 3**

**Lecturer's name Ameen Abbas**

**Academic Year: *For example* 2017/2018**

**Course Book**

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| **1. Course name** | **Transm. & dist.** | |
| **2. Lecturer in charge** |  | |
| **3. Department/ College** | **Elect. Engg. Dpt./Engg.** | |
| **4. Contact** | **e-mail:**  **Tel: (optional)** | |
| **5. Time (in hours) per week** | **For example Theory: 3**  **Practical:** | |
| **6. Office hours** | **6 hours** | |
| **7. Course code** | **EE318** | |
| **8. Teacher's academic profile** | **e.g Webpage, Blog, Moodle…**  **or few paragraphs about not less than 100 words**  **لێره‌ مامۆستای وانه‌بێژ پرۆفایلێک ده‌نووسیت له‌سه‌ر ژیانی ئه‌کادیمی خۆی (ته‌نها ئه‌کادیمی)** | |
| **9. Keywords** |  | |
| **10. Course overview:**  This course is to be familiar with electric power transmission & distribution systems performance. Topics include:  1- Electric power transmission (overhead line structure , mechanical design of overhead lines, electrical parameters of ohtl, model and steady state performance of lines, corona, under-ground cables, line compensation, substations )  2- Electric power distribution (primary distribution systems, secondary distribution systems, transformer connection, voltage drop calculation, dist. System control SCADA system). | | |
| **11. Course objective:**  1- be able to design and solve transmission problems.  2- be able to learn more about distribution systems and solve system problems. | | |
| **12. Student's obligation**  **The student should attend the lectures, solve home-works , there will a number of quizzes, two term exams and final exam..** | | |
| **13. Forms of teaching**  **Using data-show and white board.** | | |
| **14. Assessment scheme**  Exams 34% (Two scheduled exams)  Quizzes 6%  Final Exam 60%  Total 100%  ؟‌ | | |
| **15. Student learning outcome:**  The student will learn how transmission system works, methods of transmission line simulation, performance and design from mechanical and electrical point of views. He will learn new fact techniques applied to t.l's. Also, he will learn why and how d.c. transmission is use nowadays . The student will learn how distribution system works and the philosophy of its design. | | |
| **16. Course Reading List and References‌:**  1- " ELECTRIC POWER GENERATION,TRANSMISSION, and DISTRIBUTION" Edited by Leonard L. Grigsby, CRC Press,2007  2- Dr C. R. Bayliss CEng FIET and B. J. Hardy ACGI CEng FIET "Transmission and Distribution Electrical Engineering" Third edition, Elsvier,2007  **Lectures Notes:** will be available as power point presentation. | | |
| **17. The Topics:** | | **Lecturer's name** |
| Course outline ,Introduction  O.H.L. Structure  Sag & tension analysis Sag & tension analysis  T.L. parameters  Steady state performance of T.L.  Corona  Under-ground cables  D.c transmission  Substations Substations  Primary &secondary distribution systems  Loads  Transformer connections  Voltage drop calculation  SCADA | | Week1  Weeks2,3&4  Weeks5&6  Weeks7,8&9  Weeks10,11,12,13&14  Week15  Weeks16,17&18  Weeks19 &20 Weeks19 &20  Week21  Weeks22&23  Week26  Week27&28  Week29&30 |
| **18. Practical Topics (If there is any)** | |  |
| There is no practical topics. | |  |
| **19. Examinations:**  ***1. Compositional:*** In this type of exam the questions usually starts with Explain how, What are the reasons for…?, Why…?, How….?  With their typical answers  Examples should be provided  ***2.******True or false type of exams:***  In this type of exam a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of this particular sentence. Examples should be provided  ***3. Multiple choices:***  In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase. Examples should be provided. | | |
| **20. Extra notes:**  Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks. | | |
| **21. Peer review پێداچوونه‌وه‌ی هاوه‌ڵ**  This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.  *(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).*  ئه‌م کۆرسبووکه‌ ده‌بێت له‌لایه‌ن هاوه‌ڵێکی ئه‌کادیمیه‌وه‌ سه‌یر بکرێت و ناوه‌ڕۆکی بابه‌ته‌کانی کۆرسه‌که‌ په‌سه‌ند بکات و جه‌ند ووشه‌یه‌ک بنووسێت له‌سه‌ر شیاوی ناوه‌ڕۆکی کۆرسه‌که و واژووی له‌سه‌ر بکات.  هاوه‌ڵ ئه‌و که‌سه‌یه‌ که‌ زانیاری هه‌بێت له‌سه‌ر کۆرسه‌که‌ و ده‌بیت پله‌ی زانستی له‌ مامۆستا که‌متر نه‌بێت.‌‌ | | |