

EE 5223 - Power System Protection

Spring Semester 2021

B.A. Mork

- TEXT:** Required Text: Protective Relaying Principles and Applications, 4th Ed, J.L. Blackburn, © 2014. Photocopied texts or texts produced in violation of copyright law not allowed!
- REFERENCES:** Power System Analysis & Design, Ch.10, 6th Ed., J.L. Glover & M.S. Sarma, © 2016.
Protective Relaying Theory & Applications, ABB Power T&D Company, © 1994.
Symmetrical Components for Power Systems Engineering, J.L. Blackburn, © 1993.
Applied Protective Relaying, Westinghouse Electric, © 1982.
The Art & Science of Protective Relaying, C.R. Mason, © 1956.
- READING ASSIGNMENTS:** The reading assignments and information to be reviewed will be posted on the course web page on an ongoing basis. **Materials are to be read before the related lecture.**
- HOMEWORK:** Homework assignments will be given on an ongoing basis and will be a combination of handouts and book problems. Attach Homework Cover Sheet and follow given guidelines.
- Homeworks are typically to be done individually. Blind copying of problems is not allowed, as this defeats the purpose of doing homework in the first place. Some homeworks allow a partner, indicate on the cover sheet what your contribution is and sign your agreement.
- TESTS:** 0-2 Midterms may be given. They may be take-homes (either an exam or a major homework) or may be defined as a grade equivalent to one or more key homework exercises. As for all tests taken at MTU, the university's "Academic Integrity" policies shall be strictly enforced (this guide is available on-line and from the Dean of Student's office).
- ABSENCES:** Students are expected to be present for all class meetings. Note that interview trips are not an excused absence. Full credit may be possible for late work, provided there is a legitimate excuse. It is the **student's** responsibility to contact the instructor, explain the circumstances, and arrange for makeup (in advance if possible). Arrangement for late makeup of tests or the final exam is possible only in extremely exceptional circumstances. Makeup tests are graded half on written performance and half on interview/explanation of solution.
- HELP FROM INSTRUCTOR:** Questions are encouraged in class, as time permits. A classroom office hour may be scheduled upon group request. Normal office hours are in my office in EERC 614.
- GRADING:** Final averages will be based on the following distribution:
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| Tests (0-2, 20% per test): | 20% (1) (redistrib unallocated test % to other cats below) |
| Homework +quizzes*: | 45% |
| Participation | 5% (attendance, contribution to e-mail discussions, etc). |
| Term Project, jnl revw: | 30% |
- Worst case grade cutoffs: **A: above 90, AB: 85, B: 80, BC: 75, C: 70, CD: 65, D: 60**.
Cutoffs may be adjusted downward in some cases, as explained in class. Student grades-to-date and class standings will be updated following each test. It is your responsibility to verify that your grades have been correctly entered. Be aware of your standing so you know if you have to work harder to get the grade you want.

* Note: Taking of attendance or a quiz becomes especially likely if attendance wanes...