MTU ECE Department - Energy Conversion & Power Systems - Graduate Course Offerings

Sem / Year	Fall	Spring
2022/23	EE 4221 - Power System Analysis I — JTL EE 4227/4228 - Power Electronics/Lab — TJH EE 5200 - Advanced Methods in Power Systems — BAM EE 5227 - Advanced Power Electronics — FBC EE 5251 - Distribution Engineering II — CWT EE 6210 - Power System Dynamics & Stability*** — CWT	EE 4222 - Power System Analysis II — JTL EE 4219/4220 - Motor Drives/Lab — TJH EE 5223/5224 - Power System Protection / Lab — BAM EE5231 - Energy Control Center Applications — CWT EE 5240 - Computer Applications — BAM EE 5900 - DSP for Power Systems — FBC
2023/24	EE 4221 - Power System Analysis I — JTL EE 4227/4228 - Power Electronics/Lab — TJH EE 5200 - Advanced Methods in Power Systems — BAM EE 5260 - Wind Power Grid Integration*** — FBC EE 5230 - Power System Operations*** — CWT ~~EE 5290 - Adv Power System Protection+Lab~~ — ~~BAM~~	EE 4222 - Power System Analysis II — CWT EE 4219/4220 - Motor Drives/Lab — TJH EE 5220 - Power System Transients — BAM EE 5232 - Power System Optimization — AS EE 5250 - Distribution Engineering — CWT EE 5900 - High-Voltage Engineering — FBC
2024/25 (draft)	EE 4221 - Power System Analysis I — JTL EE 4227/4228 - Power Electronics/Lab — TJH EE 5200 - Advanced Methods in Power Systems — BAM EE 5227 - Advanced Power Electronics — FBC EE 5251 - Distribution Emergency Operation — CWT EE 6210 - Power Dynamics & Stability*** — CWT	EE 4222 - Power System Analysis II — JTL EE 4219/4220 - Motor Drives/Lab — TJH EE 5223/5224 - Power System Protection / Lab — BAM EE5231 - Control Center Applications — CWT EE 5240 - Computer Applications — BAM EE 5275 - Energy Storage Systems/Lab — AS
2025/26 (draft)	EE 4221 - Power System Analysis I — JTL EE 4227/4228 - Power Electronics/Lab — TJH EE 5200 - Advanced Methods in Power Systems — BAM EE 5221 - Advanced Machines — FBC EE 5230 - Power System Operations*** — CWT EE 5290 - Adv Power System Protection+Lab — BAM	EE 4222 - Power System Analysis II — JTL EE 4219/4220 - Motor Drives/Lab — TJH EE 5220 - Power System Transients — BAM EE 5232 - Power System Optimization — CWT EE 5250 - Distribution Engineering — CWT EE 5275 - Energy Storage Systems/Lab — AS

Notes:
1) *** Courses on 3-yr rotation
2) Courses in red are proposed new offerings, course numbers do not yet exist.
3) https://www.mtu.edu/ece/online/msee/ lists course offerings for online MSEE.

Other Possible Offerings, Depending on Need or Interest:

EE 5805 - Directed Study in Electrical & Computer Engineering
EE 5290 - Special Topics in Power Systems
EE 5900 - Special Topics in Electrical Engineering

<u>Some Possible Topics for EE5805/5900</u>:

- ▸ High-Voltage Power Electronics/FACTS
- ▸ Power Quality
- ▸ Nonlinear Dynamics Applications
- ▸ Smart Grid Technologies and Applications
- ▸ Advanced Time Domain Simulation (EMTP)

- ▸ Reliability
- ▸ Optimal Control
- ▸ State Estimation
- ▸ High-Voltage Engineering
- ▸ High-Voltage Equipment