**Ankara Üniversitesi**

**Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

### Çalışma Planı (Çalışma Takvimi)

| **Haftalar** | **Haftalık Konu Başlıkları** |
| --- | --- |
| 1.Hafta | Semiconductor Diodes |
| * N-type, P-type material |
| * Diode, zener regions, ideal diodes |
| 2.Hafta | Diode Equivalent Circuits |
| * Ideal diode and equivalent circuit |
| * Conduction directions |
| 3.Hafta | Diode Applications – Series and parallel configurations |
| * Series diode circuits |
| * Parallel diode circuits |
| * Cilpper and Clamper circuits |
| 4.Hafta | Diode Applications – Half wave and Full wave rectification |
| * Half wave rectification |
| * Full wave rectification |
| * Zener diodes, zener resistor values |
| * Voltage multipliers |
| 5.Hafta | Bipolar Junction Transistor (BJT) Common Base (CB) Configuration |
| * Transistor construction and operation |
| * CB configuration |
| * CB amplifier |
| * Operation regions |
| 6.Hafta | BJT Common Emitter (CE)and Common Collector (CC) Configurations |
| * Common emitter configuration and characteristics |
| * CE amplifier currents |
| * Beta value |
| * CC configuration and characteristics |
| 7.Hafta | BJT DC Biasing – Operating Point |
| * DC biasing, operating point |
| * Biasing and three states of operation |
| * Active, cut-off and saturation regions |
| 8.hafta | BJT DC Biasing – Fixed bias circuit, emitter-stabilized bias circuit |
| * DC biasing circuits |
| * Fixed bias circuits |
| * Emitter stabilized bias circuit |
| * Voltage divider |
| * Voltage feedback circuit |
| 9.Hafta | BJT DC Biasing – Miscellaneous Bias Configurations |
| * Transistor switching circuit |
| * Switching circuit calculations |
| * Switching time |
| 10.Hafta | Field-Effect Transistor (FET) |
| * FET and BJT |
| * FET types |
| * JFET construction, operation characteristics |
| 11.Hafta | Depletion Type MOSFET and Enhancement Type MOSFET |
| * MOSFET types |
| * Depletion type MOSFET and operation characteristis |
| * P-channel depletion type MOSFET |
| * P-channel enhancement type MOSFET |
| 12.Hafta | FET DC Biasing – Fixed bias and self-bias configuration |
| * Common FET Biasing Circuits |
| * JFETs |
| * Fixed-Bias Configuration |
| * Self-Bias Configuration |
| * Voltage-Divider Bias |
| * Voltage-Divider Bias Calculations |
| 13.Hafta | FET DC Biasing – Voltage Divider Biasing, Common-gate biasing |
| * Depletion-type MOSFET bias circuits |
| * Self-Bias |
| * Feedback Biasing |
|  | * Voltage-Divider Biasing |
| 14.Hafta | CMOS Circuits |
| * CMOS construction |
| * CMOS inverter |
|  |