

## Homework 4

**EE 362 Electronic, Magnetic, & Optical Properties of Materials (Spring 2025)**

**Friday, February 21, 2025**

- 1) 4.1a Also, find  $N_c$ ,  $N_v$ , and  $k_B T$  at each temperature.
- 2) 4.10 Hint: Table 4.1 or Table B.4.
- 3) 4.19 First, find  $N_c$  and  $N_v$ .
- 4) 4.23a
- 5) 4.34ad
- 6) 4.46
- 7) 4.49
- 8) 4.56

**Due Wednesday, February 26, 2025**

Notes:

- Carry *at least 6* significant figures on constants/parameters in calculations. Give answers with **4-5** significant figures.
- Assume 300 K unless otherwise specified.