## Homework 3, ECEN 3400, Fall 2013, Covers chapters 9 -10 and 12

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Due: Friday, October 11, in class (3pm)

- 1. P9.18, page 137 in text
- 2. P10.3, page 155 in text
- 3. P10.8, page 156 in text
- 4. P11.11, page 179 in text
- 5. P12.6, page 202 in text
- 6. P12.7, page 203 in text
- 7. Look up the properties of nichrome wire used in many heating elements. I am leaving it up to you to decide what are the 6 most relevant properties as far as an electric heater is concerned. Summarize them in a table. List your source (it cannot be Wikipedia, but you can use it to help you find sources.)

|   | Property (name) | Number and unit | Why it is relevant |
|---|-----------------|-----------------|--------------------|
| 1 |                 |                 |                    |
| 2 |                 |                 |                    |
| 3 |                 |                 |                    |
| 4 |                 |                 |                    |
| 5 |                 |                 |                    |
| 6 |                 |                 |                    |

8. Look up the smallest and largest current that electric fuses are manufactured for. What are they made of and how large are they? List your sources, same comment as above.