General Expectations:

- Design broadband antenna for listed frequencies
    - Primarily operate over 10 frequencies from 13-26 MHz
    - Show that the design is scalable for additional frequencies
- Electric field is scalable up to 40 feet
    - Operate in the near-field
- Show that power level is scalable
    - Power level tested is dependent on testing devices and Dr. Bunting
- Regular communication is expected
    - Weekly email updates regarding the project status
    - Monthly teams meetings with Marshall and Carl showing status
    - Relevant slideshows are recommended to include
    - Additional meetings or updates if desired by students
    - Summaries of meetings sent to Marshall and Bunting after

Antennas:

- Flexible on antenna design choice
    - Likely will start with a whip antenna, random-wire antenna, and third choice
    - Keep in mind antenna will be used externally and subject to environmental wear and tear
    - Dr. Ohara can be a good resource as well as Tim (HAM radio guy)
- Antenna is primarily used for transmission, receiver ability does not matter

Balun/Tuner:

- Impedance matching for 50-ohm
- Likely requires the most design work for broadband applications

Transmitter:

- Use signal generator and amplifier

Testing:

- Aniconic chamber likely not needed and too small for project dimensions
- Only 1 person needs general HF license but a backup would be good

- Can possibly order test equipment from Dahlgreen; they may need a few weeks notice
- Begin by testing a low frequency legal bands
    - VNA measurements and simulations can be used to predict response at higher frequencies
    - Possibly use a dummy load (RLC circuit) for aniconic chamber