Here is my vision of what your junior presentations should address.

General Aspects

Think of these presentations as a combination progress report and feasibility study. The major question you should attempt to answer is "should resources continue to be expended on developing the device you were asked to design or should those resources be redirect to some other project that is more like to be technically and commercially successful." By the end of your presentation, the audience should clearly understand your position on this issue (*go* or *no go*) and the evidence and reasoning that lead you to this position. They should also be impressed by what you have gotten done during the past year and a half.

You should understand the "professional" implications of the two possible conclusions. First, as a professional, you are ethically obliged to communicate your belief that a particular effort is likely to fail. Also, ending a project prior to making a large investment in it is generally better for your career than having your project fail or be cancelled later. However, deciding, even correctly, that a project should be cancelled can harm your reputation in a company.

In the case of the design component of the BE program at MSOE, if you recommend your project be cancelled it probably will be and your team will be disbanded. This may or may not be desirable to you or your teammates.

Specific Topics

I would expect all or most teams to address all or most of the following topics in your junior presentation (more technical and less market related topics would be addressed for projects on the research end of the continuum):

- Clearly state the goal (objective) of your project (what you device will do, not how it will do it).
- Present a block diagram and conceptual sketch of your device (this could be done later in the presentation if so desired).
- Clearly explain why this goal is worthwhile (define the need for your device).
- Define the market (size, ability to pay, price point, etc.) for your device. Present results indicating that you have applied a systematic approach to understanding

who your potential customers are, their needs and the attributes of current competitive or alternative products. You can use the QFD or some other equally formal and detailed method for this.

- Clearly define all significant regulatory, standards, ethical and social issues associated with your device or its use. It particular state if the device will be regulated by the FDA.
- Articulate the one or two most critical issues that must be resolved for your project to succeed and address how your team is addressing or will address these issues.
- Describe two more technological approaches that your team will likely apply to address the need your device is intended to satisfy (how your device might work).
- Clearly state if the project should be continued or if you recommend its cancelation.

If you recommend continuing the project (this is the preferred outcome)…

- Provide a preliminary schedule list tasks and assigning responsibilities from the time of junior presentation until graduation.
- Provide a preliminary budget for completion of the project and proposed funding sources.

If you recommend cancelation of the project…

- Provide a concise and compelling argument for the cancelation.
- Suggest one or more alternative projects (possibly those already under consideration by other teams) that your team's resources (mainly the team members) should be reallocated towards.

Other Issues

Presentations will probably be limited to 30 minutes total duration including 5 to 10 minutes for questions. Due to this time limit, you may not be able to fully address all of these issues in your presentation. Therefore, you must provide convincing supporting documentation for your conclusions and recommendations in your Design History Record.