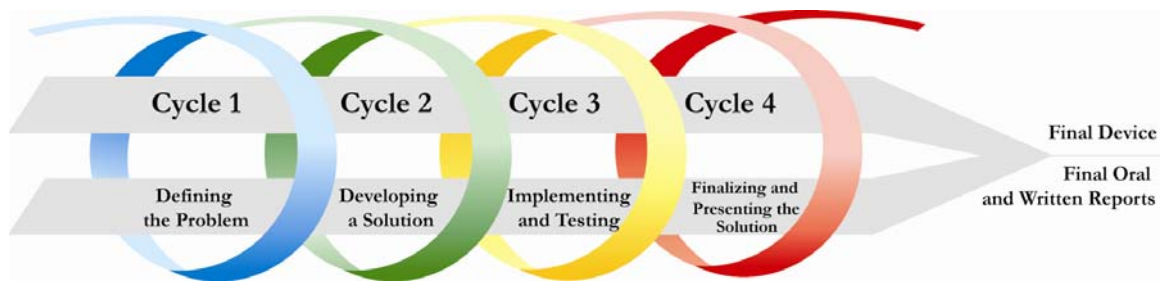


BIOE 451/452: Overview of Bioengineering Design and Communication

Young engineers often consider a prototype or product to be the primary output of engineering design. But that prototype or product cannot be conceived of, patented, developed, or used without engineering documents.

The documents in the bioengineering design capstone course enable your team to

- Reach consensus and build a shared knowledge base for your project
- Secure feedback and approval from managers, sponsors, and other stakeholders on your ideas, strategies, and progress
- Plan your project and identify necessary schedules, materials, and resources to achieve your aims
- Track your progress and provide a mechanism for assessing how well your results map to your original aims and design specifications
- Educate stakeholders and other teams about how your design works and the contribution it makes to your discipline
- Help stakeholders use, maintain, and repair your design



Graphical Representation of the Design Development and Documentation Process. In the bioengineering capstone design course, you will go through two cycles each semester and end up with a final device prototype and documentation.

The design process starts with selecting and analyzing a specific design problem. The process then cycles through repeated steps of developing, building, evaluating, and refining solutions. Communication also cycles through repeated steps. As you evaluate and change your design, you will continually consult, update, and expand upon your design documents.

This packet offers resources to help you understand the purpose of bioengineering design documents and how to prepare and revise them. It also offers links to accelerators—examples and interactive tools that clarify tasks and increase efficiency. Refer to the items in this toolkit to help your team work through the design process and communicate its accomplishments to others.