E-ship and I-ship Thesis Proposal Options

An applicant for an I- or E-ship thesis project will select one option as the primary thesis form for comprehensive completion. Other options or elements of other options may be included with the primary if desired and time permits.

1. **Business Concept Thesis (BCT).** Example: The thesis documents the process of how a better mouse trap (as an idea with or without much engineering detail) could be brought to market in accordance to the 24 steps outlined in the recommended reference.

A written document reporting the plan, actions, and results of researching and planning a pathway to and market potential of an idea for product(s), system(s), and/or service(s). This evaluation and planning of a business concept should include many of the 24 steps summarized below and described in more detail in the recommended reference, *Disciplined Entrepreneurship: 24 Steps to a Successful Startup* by William Aulet:

- Product/service/system description: Design/function/purpose which may or may not include more technical aspects.
- Market Analysis: Research data on market conditions (industry, market, customers, competition) to analyze need, opportunities and profitability;
- Competition: Comparison and analysis;
- Commercialization plan: Competitive advantage; value proposition; specific markets (customers) defined and quantified; sales, distribution, and customer service strategies; marketing and advertising strategies.
- Operations: Systems, strategic partners, and processes needed to sell, produce and deliver.

2. **Product Development Thesis (PDT).** Example: The thesis documents the research, design, technology, testing, and result of efforts to develop a better mouse trap.

A written document reporting the plan, actions, and results of a project or proof of concept for product(s), system(s), and/or service(s) that may have commercialization value. This project or proof of concept may include some or all of the following:

- Research
- Design/plan
- Development (prototype)
- Testing
- Implementation
- Outcomes

3. **Business Plan Thesis (BPT).** Example: The thesis documents a "formal business plan" that could be used to secure funding needed to build or expand a business for the production, marketing, distribution and selling of a better mouse trap.

A written document describing the nature of a new business or an enhancement/redefinition of an existing business that includes all of the following elements summarized below and defined in more detail in the annotated Business Plan outline that will be provided:

- Business description including company’s mission and vision;
- Market Analysis: Research data on market conditions (industry, market, customers, competition) to analyze opportunities and profitability;
- Marketing and Sales: Product(s) or service(s) and specific markets (customers) defined and quantified; competitive analysis; marketing, advertising, sales and customer service strategy plans;
- Management and Operations: Names and qualifications of owners/managers; personnel plan; operations plan (systems and processes needed to sell, produce and deliver);
- Financial Projections: Cash flow, profit and loss, balance sheet (2-3 years); funding needs and how the money will be used (sources and uses).

Rev 5-19-15