

## MISST Project 9 – “Entrepreneurial Technology”

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What does it mean to be an entrepreneur? This is a question many young and old ask themselves. Often one doesn't think of young people wanting to start their own business. Yet, one study found that 7 out of 10 high school students want to start their own business.<sup>1</sup> But where should they start? Too many searches for information (on the web or from TV and radio commercials) end up with sites that proclaim short paths to great wealth – usually these involve a fee to purchase some great scheme for “easy” wealth. (For these, the adage holds true: “if it sounds too good to be true – it probably is.”) I believe that many seek to start their own business not to just make it rich, but for different and more lofty goals. They have an idea; they want to be their own boss; they want to help their community or the world. This is what entrepreneurs do. Some supporting points:

- The majority of new jobs are created by entrepreneurs and small businesses
- Small high growth companies account for 70% of economic growth over last decade
- Entrepreneurship accounts for at least 2/3 of all technological innovation<sup>2</sup>

To serve this market in a helpful way, I am proposing a program in entrepreneurship education that focuses on the areas of the most promise and growth. The program is titled “Entrepreneurial Technology”. The plan is an entrepreneurial degree where there is a core that follows the creation of a business plan, except it will not be focused so much on the concept of the business plan “document”, as it will be on a plan for a business. The difference between the two is that too often the former becomes a document to sell an investor or financier without any further meaning. It becomes a means to an end best described this way, “There's one thing I've learned about entrepreneurs' business plans, every one is wrong.” – Josh Kopelman, “Super Angel” venture capitalist<sup>3</sup>. A true long term plan for success has value even if there is no need to seek investment. Also, a good plan for success can allow for the easy creation of a business plan “document”.

The program will utilize an applied learning model, which will be a true hands-on program. Many programs in entrepreneurial studies will include applied learning through a case study/practice company format that lasts for only one or two courses. Unlike these programs, participants in this Entrepreneurial Technology program will be developing a plan for a real product, which they in turn would be encouraged to develop into a real enterprise. Some unique components to assist these participants will be:

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<sup>1</sup> Consortium for Entrepreneurship Education, “National Content Standards for Entrepreneurship Education”, June 2004, slide 4, [http://www.entre-ed.org/Standards\\_Toolkit/Helpful%20Downloads/NCSEE%20Powerpoint%20-%20Detail.ppt](http://www.entre-ed.org/Standards_Toolkit/Helpful%20Downloads/NCSEE%20Powerpoint%20-%20Detail.ppt)

<sup>2</sup> Consortium for Entrepreneurship Education, “National Content Standards for Entrepreneurship Education”, June 2004, slide 3, [http://www.entre-ed.org/Standards\\_Toolkit/Helpful%20Downloads/NCSEE%20Powerpoint%20-%20Detail.ppt](http://www.entre-ed.org/Standards_Toolkit/Helpful%20Downloads/NCSEE%20Powerpoint%20-%20Detail.ppt)

<sup>3</sup> “Super Angels” Shake Up Venture Capital, Business Week, May 21, 2009, [http://www.businessweek.com/magazine/content/09\\_22/b4133044585602\\_page\\_2.htm](http://www.businessweek.com/magazine/content/09_22/b4133044585602_page_2.htm)

- Participants will present their plan to a real group of potential investors/reviewers. In addition to reviewing the proposal and offering suggestions and critique; the group could potentially provide real funding to start the venture
- Through a partnership with a local incubator or similar organization, participants will actually start their venture. This capstone project will last at least 2 to 3 months at the incubator. During this time, they will be able to consult with both the incubator support staff and the program advisor, among others.

Technology will be a key component of the program. Technology is a core part of business – both as a product and in understanding how it can affect business. Technology is the higher growth area that is both desired by many entrepreneurs and offers the potential for the most economic impact. The main method for including technology will occur in the selection of the product or service to be developed. Participants will select an information based / technological product or service as the focus of their companies. The program will also include components on understanding information sources, information flow, and ways to best utilize this information strategically.

#### Format

This program could function in several different settings. It could

- Function as a major towards a bachelor's degree
- Stand alone as a credit or non-credit program offered by a 2 or 4 year institution
- Stand alone as a training program

The core would be common among all three options. The core consists of five phases (classes). Each are a series of meetings in group settings, with a final “deliverable” at the end. In the baccalaureate scenario, each “phase” or course equates to 3 credit hours (except for V – Implementation, which is expected to equate to between 6 and 9 credit hours). Each phase would build on previous phases.

In the group format, participants would learn from each other's progress. The interim and final deliverables are intended to show evidence of the learning by all participants. For group projects, collaboration tools such as wikis and the like will be used to allow the leader/advisor to determine participation. This would be important in all settings, but especially so in the college/university setting where grades would be assessed. Finally, because the ideas being considered are likely to become real products, confidentiality agreements would be required of all participants.

*What they learn:* The five phases of the core are built around the content standards from the Consortium for Entrepreneurship Education (below). Specifically, the five phases focus on the “Entrepreneurial Skills” category of these standards. Other standards in the categories of “Ready Skills” and “Business Functions” are either addressed in the supplemental courses or would need to come from previous experience (in the non-credit or training program the supplemental courses would likely not be offered). A listing of these categories and how they are addressed in the program is included below.

*How they learn:* There is an overall learning model that I tried to keep in mind throughout the phases of the program. It applies to any challenge presented, whether in a course or in life. It consists of learning on five levels:

1. Identify the learning issues – what concepts must be understood to approach the issue
2. Perform inquiry and research
3. Analyze and draw conclusions
4. Propose a solution
5. Reflect on the learning from the challenge and how it will be applied in the future.

This model is laid into the five phases and should be emphasized by the advisor/leader of the program throughout. Understanding this learning model will help the participants throughout their careers/lives.

The primary method of learning comes from application of the standards in the creation of the plan for the business. Individual and group research are then applied to the development and implementation of the ideas vetted during the early stage of the program. Business concepts such as business models and business cases, financial projections/economic feasibility, risk management, resource planning and management are all built into the five phases as listed below. Also participants will study other successful companies as they understand how innovation occurs and how previous ventures have begun. The impact of technology is laced throughout the program as well: Both in the exploration of product/service ideas; and in understanding how it can be used throughout the business in areas from marketing to resource identification. Emerging trends, such as current developments in Web 2.0, will be emphasized throughout. Additionally, participants will be able to observe these processes in action through observation of local business incubators and investor group meetings, which will occur prior to their use of these services.

Following are the descriptions of the five phases of the core; and additional courses that would complete a major in a baccalaureate program.

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#### Program (course) outline - Core

##### § I – ET Basics

- How innovation occurs – study successful models and how innovative products/services were founded – Participants will review cases of successful new products that started from unique ideas. Discussion will center around how the ideas were developed and how innovation is fostered at different levels. Suggested companies today would include GE, Apple, Ikea among others. Groups will be assigned to present on what allows innovation to occur – either at the organizations studied or for their individual efforts.
- Understanding trends – discussion of the impact of current technological trends, including impact of global events/trends on the future of technology – Class discussion on the impact of global events on trends in technology. Papers or presentations by groups that would forecast technology in the next 5 years are suggested to demonstrate understanding of these trends

- What is a business model? – Discussion of the concept of a business model and how it differs from other similar documents, the business case and the business plan. The merits of each are researched and application is suggested by participants.
  - Deliverable: create potential business models – Individually, participants are directed to identify at least three ideas that they would like to pursue for a business. The business is to be started by them as individuals (or teams if they so choose). A business model is prepared for each and presented to the group. The business model would be expected to demonstrate understanding and application of all of the above concepts to the products or services proposed.
- § II – ET Exploration
- Discussion of product feasibility – Study and discussion by participants into what makes a product or service feasible. Look at market trends. Discussion of how to identify trends in markets. These principles will be applied to each potential product from the business models.
  - Development of concept – Building upon work in feasibility, the ideas from the business models will be further developed to answer the following questions<sup>4</sup>:
    - § What product or service will be offered?
    - § Who is going to buy it? Go into great detail about the customer.
    - § When are they going to buy it? Is this seasonal, impulse, ...
    - § Critically important is why are they going to buy from this company instead of someone else? What is the company's sustainable competitive advantage?
    - § How the industry is currently structured and whether this business is going to support or disrupt that structure.
    - § Briefly discuss current market size and trends.
    - § Briefly discuss key competitors. Be sure to include key competitors like the biggest market share and the biggest (real or potential) disrupter. Status quo/doing nothing may be the company's biggest competition.
    - § What are the barriers to entry and exit?
- After the completion of this step, participants will likely have one business model that they will pursue for the balance of the program. The business model will be modified to address all of the above concepts.
- Risk management – One of the certainties of any business concept/plan is that it won't work as planned. Participants will discuss different risk assessment techniques and apply them to the product/service(s). Participants will then present a risk assessment to the group using one or more techniques to demonstrate understanding of the concept.
  - Explore / identify other resources for development – At this point, participants will be exploring alternatives for development of their product and identifying likely costs for the product. As the goal is to actually start a business with this product, participants will be

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<sup>4</sup> "Writing a Business Plan", NIACC John Pappajohn Entrepreneurial Center, Accessed 6/4/09,  
[http://www.niacc.cc.ia.us/pappajohn/businessplan.html#Business\\_Concept](http://www.niacc.cc.ia.us/pappajohn/businessplan.html#Business_Concept)

welcome to explore actual development alternatives as well, but may want to wait until further exploration of the concept in phase III below. Participants will prepare a description of the likely method for development and initial cost estimates.

- How to determine economic feasibility – Review cost components of a financial forecast. Group discussion of costs involved. Individual participants will start to develop the costs of their product. The basis for the cost estimates will be indicated and reviewed with the advisor to demonstrate understanding and indirect costs / contingencies that may have been overlooked.
- Deliverable: outline of business case for chosen product – A decision is made on the business model to be developed. Building upon the earlier discussion of the differences between business model and a business case, an outline of a business case will be developed as the final deliverable. The outline should demonstrate understanding of all the concepts presented above.

### § III – ET Resources

- How new ventures are funded – Discussion and research into alternatives of funding for startup ventures with individual deliverable of the pros and cons for each in general and specific to the concept being developed. Includes observation of venture/angel funding group meeting. Participants will be asked to write a summary of areas the investors seemed to analyze and strengths and weaknesses they observed. Expected areas to consider may include:
  - § The business opportunity
  - § Strength of sales and marketing plan
  - § Level of competition
  - § The technology proposed
  - § Financial projections
  - § Legal status (including patents)
  - § Management team
- Other resource needs for a new venture – Building upon previous section, participants will work on identifying resources for their chosen product. Items to explore include:
  - § Talent for development of product or performance of service
  - § Administrative needs and possible sources
  - § Facilities/resourcing
  - § Other potential sources will also be discussed. A discussion and exploration of alternative sources, including using online resources for identification such as social networking or other current technologies. There is great potential to reach outside normal boundaries to locate services through these resources. Social networking and other Web 2.0 technologies allow one to connect to people of like interests. Participants will be challenged to research new developments in this area and discuss the opportunities and risks associated with this type of networking.

The group would observe an incubator or similar new business support center. At the end of this section, participants will learn about different options for obtaining resources, with a focus on non-traditional alternatives.

- Deliverable: economic feasibility analysis / financial projection for the product/service selected. Participants will present this to the group and the merits discussed.

§ IV – ET Implementation planning

- Identify best sources of support & development – Participants work towards a decision on resources. With assistance, they look at background of how to engage these people (employee, contractor) and work through agreements, including confidentiality.
- Identify success measures & tracking methods – Participants look to plans developed to date in marketing, financial projections, and other product/service development plans and create indicators and methods to track against these goals.
- Deliverable: Business and operational plan – Final deliverable is a business and operational (strategic) plan document. While this is the document referred to above, the work to date will make it more of a true operations plan for the business as well as a document to be used for financing. In addition, a presentation for potential investors/lenders will be developed.
- Plans will be offered for a presentation to Angel group or other for real funding and/or recommendations for improvements. – The plan above will be presented to a subset or the entire angel investor group (or equivalent panel with experience in evaluating start-up concerns) for a real funding request and/or critique. Participants will work with advisors and potentially investors to address concerns raised during presentation.

§ V – ET Implementation (6 to 9 credit hours)

- Work to implement plan
- Ideally would take place with support from a local incubator. The Incubator would primarily offer space and ongoing counseling sessions.
- Participants will also be encouraged to utilize services of local college students. Some services required by the start-up businesses can be provided by interns in the necessary discipline (accounting, marketing, graphic design/advertising, etc.)
- Includes assessment of results after 2 months by individual with advisor - what went right and what went wrong.

§ failure would not impact negatively on assessment/grade

§ Successful businesses rarely succeed implementing the original business plan

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Additional courses for a baccalaureate program:

Additional content is necessary for participants seeking a bachelor's level degree. This is partially because the above content would amount to around 18 to 21 hours, when a major would normally run from 30 to 40 credit hours (on a semester basis). It is also because the traditional younger college student does not

necessarily have relevant experience that can help develop some of the theory underlying the concepts above. Additional courses suggested<sup>5</sup>:

- Financial Accounting (ACCT 201)
- Managerial Accounting (ACCT 202)
- Macroeconomics (ECON 216)
- Microeconomics (ECON 215)
- Marketing (BUSI 341)
- Management principles (BUSI 321)
- Managerial Finance (BUSI 318)

Electives that could be considered as part of a degree program:

- Money & Banking (ECON 311)
  - Business Law (BUSI 360)
  - International Business (BUSI 412)
  - Software applications for Business (ACCT 423)
  - Business Ethics (BUSI 414)
  - Professional Selling (BUSI 416)
  - Advertising (BUSI 417)
  - Consumer Behavior (BUSI 419)
  - Management information systems (BUSI 420)
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<sup>5</sup> Courses at Muskingum College are used as examples, pages 74 to 79,  
<http://www.muskingum.edu/home/registrar/downloads/08-09CourseCatalog.pdf>

Learning outcomes – From “National Content Standards for Entrepreneurship Education.”<sup>6</sup> These are divided into three main categories.

Skills	How addressed in program
<b>Entrepreneurial Skills</b>	
<ul style="list-style-type: none"> <li>• Processes               <ul style="list-style-type: none"> <li>○ Discovery - The stage in the entrepreneurial process in which the entrepreneur generates ideas, recognizes opportunities, and determines the feasibility of ideas, markets, ventures, etc.</li> <li>○ Concept Development - The stage in the entrepreneurial process in which the entrepreneur plans the venture, identifies needed resources using a business plan, identifies strategies .to protect intellectual property, etc.</li> <li>○ Resourcing - The stage in the entrepreneurial process in which the entrepreneur identifies and acquires the financial, human, and capital resources needed for the venture startup, etc.</li> <li>○ Actualization - The stage in the entrepreneurial</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Phase I:               <ul style="list-style-type: none"> <li>○ How innovation occurs</li> <li>○ Understanding trends</li> <li>○ What is a business model?</li> <li>○ Deliverable – create potential business models</li> </ul> </li> <li>• Phase II:               <ul style="list-style-type: none"> <li>○ Discussion of product feasibility</li> </ul> </li> <li>• Phase II:               <ul style="list-style-type: none"> <li>○ Development of Concept</li> <li>○ Risk management</li> <li>○ Explore / identify other resources</li> <li>○ Deliverable – outline of business case</li> </ul> </li> <li>• Phase III:               <ul style="list-style-type: none"> <li>○ How new ventures are funded</li> <li>○ Other resource needs for a new venture</li> </ul> </li> <li>• Phase III:               <ul style="list-style-type: none"> <li>○ How new ventures are funded</li> <li>○ Other resource needs for a new venture</li> <li>○ Deliverable – Economic feasibility / financial projection</li> </ul> </li> <li>• Phase IV               <ul style="list-style-type: none"> <li>○ Identify best sources of support &amp; development</li> <li>○ Deliverable – Business and operational plan</li> <li>○ Presentation to Angel or other investor group</li> </ul> </li> <li>• Phase IV</li> </ul>

<sup>6</sup> The National Content Standards for Entrepreneurship Education, Consortium for Entrepreneurship Education, 2004, [http://www.entre-ed.org/Standards\\_Toolkit/standards\\_overview.htm](http://www.entre-ed.org/Standards_Toolkit/standards_overview.htm)

<p>process in which the entrepreneur operates the venture and utilizes resources to achieve its goals/objectives.</p> <ul style="list-style-type: none"> <li>○ Harvesting - The stage in the entrepreneurial process in which the entrepreneur decides on the venture's future (growth, development, demise).</li> <li>● Traits/behaviors       <ul style="list-style-type: none"> <li>○ Leadership</li> <li>○ Personal Assessment</li> <li>○ Personal Management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Identify success measures &amp; tracking methods</li> <li>○ Deliverable – Business and operational plan</li> <li>● Phase V       <ul style="list-style-type: none"> <li>○ Work on plan implementation</li> </ul> </li> <li>● Phase V       <ul style="list-style-type: none"> <li>○ Assessment / reflection</li> </ul> </li> <li>● These are developed throughout the five phases. Emphasis will be placed on a reflection of learning at each step in the program.</li> </ul>
<p><b>Ready Skills</b></p>	
<ul style="list-style-type: none"> <li>● Business Foundations</li> <li>● Communications &amp; interpersonal skills</li> <li>● Digital skills</li> <li>● Economics</li> <li>● Financial literacy</li> <li>● Professional development</li> </ul>	<ul style="list-style-type: none"> <li>● Support would primarily come from prior training/experience. Participants in a traditional bachelor's program would gain some from a traditional LAE base with focus on business prerequisites.</li> <li>● Most of this will be built through projects towards the "plan for a business" concept.</li> </ul>
<p><b>Business Functions</b></p>	
<ul style="list-style-type: none"> <li>● Financial management</li> <li>● HR management</li> <li>● Information management</li> <li>● Marketing management</li> <li>● Operations management</li> <li>● Risk management</li> <li>● Strategic management</li> </ul>	<ul style="list-style-type: none"> <li>● These are addressed in the creation of a successful plan covering each area.</li> <li>● During the development of plan and especially during the "hands on/incubator" phase, participants will be directed to identify sources for these. Potential sources can be found through social networking. Another option would be local UG students seeking internship credit/experience.</li> </ul>