The business plan course: what do you do before the business plan course? John W. Mullins

The problem: This turkey won’t fly…but they’ve been assigned to tell VCs why their idea will work.

- Solution: Put a course in front of B-plan course to focus ideas
  - Market, industry and team
  - Deliverable: feasibility study based on actual primary and secondary research
  - Prizes for both feasible and not feasible work, so either is welcome
- Feed best into b-plan course
- Research question: How do you assess opportunities?
  - Point of confusion #1: The Market/ Industry Distinction
    - What’s a market? A group of potential buyers/customers
    - What’s an industry? A group of providers/sellers
    - These things are frequently confused
    - The seven domains of attractive opportunities
      - Market domains: market attractiveness
      - Industry domains: how attractive industry is
  - Point of confusion #2: Macro/Micro distinction
    - Large and growing markets are important, but…has anyone ever seen a b-plan that didn’t say that?
    - More importantly, are customers going to buy your stuff?
    - Structurally attractive industries (in a five forces sense) are also important but…can you hold your advantage? Is advantage sustainable?
      - Framework grows to include macro and micro level examination of market and industry
      - Target segments benefits and attractiveness (market)
      - Sustainable advantages (industry)
  - Point of confusion #3: What’s crucial about entrepreneurs and their teams?
    - It’s not found on their CVs…
    - Not simply about “chemistry” or “character” or “entrepreneurial drive”
    - It’s about 3 things:
      - Mission, aspirations propensity for risk—similarity of goals
      - Ability to execute on Critical Success Factors—people need to understand the CSF
      - Connectedness up and down Value Chain—degree to which team is connected up and down Value Chain
• People almost never make money on original b-plan, so if team is well connected they can see when changes need to occur, make adjustments necessary

• Putting the Seven Domains to work
  o No opportunity is perfect, all have significant question marks, negatives
  o Challenge is to reshape the opportunity: ie, change market, industry or team, change question marks and negatives into pluses
  o It’s not recognizing opportunity, it’s shaping and developing
  o Important to offset weaknesses with compensating strengths

• Seven domains:
  o Identify key weaknesses
    ▪ Questions to be answered
  o Suggest avenues for reshaping the opportunity
  o Identify key strengths, jump-start b-planning
  o Integrate and bring to life course material

• For the seven domains...
  o The scores are not additive
  o Strong scores at the micro level can mitigate poor macro-level scores—micro trumps macro

• First chapter of book available at http://www.london.edu/faculty/jwmullins

• How do you change an existing course when you don’t have ability to do a “pre-course”
  o Build course around gathering evidence from potential customers, do research, talk to customers, etc
  o It’s the marriage of technology to the customer that is important

• What is more important? The teaching or the business plan? Developing and assessing the opportunity is very important

• Most entrepreneurs don’t have a formal b-plan to start their business, it’s the process that is important, that process is different than writing the plan

• Adding classes in engineering department can be difficult—problematic to add things to courses.

Student Projects For Technology Companies: Successful Experiences with Nokia
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• Challenging Times for a Titan
  o Sales have flatlined at 30 billion euros over the past two years
    ▪ Clamshell took off
  o Market share has fallen which has prompted handset price cuts
  o When will 3G take off spurring advanced handset demand?
    ▪ Network problems
  o How to make the most of R&D investment (4 billion euro)
    ▪ Huge labs in Asia and San Diego

• Nokia’s reach is broad
  o All kinds of gadgets, fitness monitors, digital pens, frames, fashion
Entertainment, NGage=disaster in the US,

- Nokia Ventures Organization
  - Incubate ideas, development, nokia research center (they never talk to customers)
  - Students typically are trying to help NRC identify opportunities
- Course has an intro, followed by invite-only course for development with existing companies
  - Nokia makes presentation in class that gives a “10000 meter view” of mobile space
  - ID a number of areas that are of particular interest (health and wellness, youth market, elderly, etc)
  - Students brainstorm potential ideas in a group of their choosing (4 max)
  - Groups apply for a project by summary in one page, plus one page cv of everyone in the group
  - Proposals independently reviewed by Nokia and instructor
  - Teams assigned a mentor inside company—this is terribly important
  - Non-disclosure agreements need to be signed by participants and course instructor—this was contentious
  - A written report is submitted for credit
  - Make a presentation to ventures department, a mechanism for greenlighting projects for further funding
  - Students grilled on aspects of their proposals (ruthlessly) mainly about market—is there a real market, do they have money to pay? Nobody inside Nokia sees a phone bill, monetizing idea can be difficult
- Takeaways
  - A fresh perspective has helped to alleviate tunnel vision
  - Tests student’s ability to synthesize vast amounts of market research available from a firm with global reach
  - Teasing out the feasibility of a real life project is fun
  - A risk-free way to get exposure to Nokia Ventures
- Frustrations:
  - Students were encouraged to ask questions, but were told ‘no comment’ in many instances
  - Silo mentality is alive and well
  - Ppl don’t like to hear their view is unrealistic
  - Consultant syndrome—mentors said “tell me what I want to hear”
  - Are some of these thoughts “way ahead of themselves?”
- Mobile technology takes a long time to unfold

Questions:
Do you see this as something easily translated to other companies?

Yes, most appropriate for companies reasonably far along, that have a venturing division. Nokia has been dealing with 3 different schools; the students absolutely need to have a mentor, there must be a structure, a report, some kind of presentation to the company, they want to choose students themselves.
Sounds like Bell Labs and AT&T. Do you think someone will eventually beat them in their market?
   Challenges are set up for them. Silos (ie, departments don’t talk to each other) are a real killer. Plus, there have been disasters with trying to encourage a more entrepreneurial feel and not being open to giving equity. That’s in the process of changing. They’ve been knocked from the pedestal, which is causing changes

*What is the name of the course?*
   New venture development one and two. Assessment followed by proposals. Prereques are intro to strategy, marketing, and business class. Like a capstone course.

*It sounds as though you are looking at this as a course for generating idea and developing opportunity. Are you looking at it from market side first?*
   Yes, more critically the market side. The assumption they make is that they probably have somewhere some technology that will make anything you want to do possible.

**Tom Mason**
*Rose-Hulman Institute of Technology*

**Development of an Entrepreneurship Minor and other entrepreneurship education for all engineers**

- **Definition of entrepreneurship**
  - Combination or recombination or resources in innovative and valuable ways
  - Invention is only the beginning of innovation
  - Emerson was wrong—the world is not going to beat a path to your door
  - Entrepreneurship does not necessarily mean a new business,

- **Importance:**
  - Jobs and prosperity
  - Global competition-> days of dilbert are done
  - Entrepreneurial skills are complements to technical skills
  - New enterprises seldom fail due to technical failure
  - Best technology does not always win!

- **Education and Business differences**
  - Pursuing truth does not equal pursuing profits
  - Academic time is different from business time
  - Business allocates resources for value, not fairness
  - Business values ambitious failures much less

- **Entrepreneurship at Rose-Hulman**
  - A course since the mid 80s called the entrepreneur
    - B-plan components, understanding of plans
  - Entrepreneur in residence program
  - Project-based education
    - Try to get as many as possible to have an externally sponsored project as a part of education
- Rose-Hulman Ventures incubator, new product development
- Engenius Solutions is a student organization to fund student ideas
- Recent Developments
  - Multidisciplinary entrepreneurial design courses
  - Minors for BS and MS students
- Still in approval process
  - Master in technology entrepreneurship
- Spectrum of opportunities
  - Project work in courses is for education, RH ventures still very educational but clear business objectives
  - Engenious solutions is between ed. And bus.
- Rose-Hulman ventures
  - Foster creation and growth of innovation-based businesses by providing access to resources
- Educational benefit
  - Over 300 student and faculty experiences
  - Faculty
    - Intellectual stretch and great experiences
  - Students
    - Excitement of real engineering
    - Learned things not evident in courses and labs
      - Requirements shift
      - Business realities such as deadlines and cash
    - Aids the job search—even in big companies
- Multidisciplinary entrepreneurial design course
  - A dozen engineering and science faculty involved
  - Oudles on project management, creativity, b-plans
  - Innovative projects for students
    - Large and small companies involved
  - NCIIA grant received for course development
- Entrepreneurship minor
  - The entrepreneur
  - Technology management and forecasting
  - Project management
  - Managerial accounting
  - Financial economics
  - Participation in an approved entrepreneurial senior design experience
- Graduate e-ship minor
  - Technical e-ship
  - Marketing new technology
  - Accounting for technical managers
  - Project management
  - Implementing innovation
- Master of tech. e-ship
  - Builds on engineering management program
  - Focused courses to acquire needed business skills
• Blends academic work with early stage e-ship
  • Challenges and Responses
    o Rigid curricula
      ▪ Emphasize outcomes desired for the majors
      ▪ Students overload if they see value
    o Worry about technical rigor
      ▪ Involve respected technical professors, get their support first
    o Worry about loss of elective enrollments
      ▪ Involving technical faculty in e-ship course
    o Breadth without depth—“now they know about marketing and finance”
      ▪ No—but they know they need to learn more
      ▪ We are planting seeds