Farley Center for Entrepreneurship + Innovation

NUvention Guiding Principles and Approval Process

Origins

NUvention began in 2006 when a Northwestern student was struck by an idea for a different type of interdisciplinary and experiential class. That student reached out to peers at other NU schools, and the small team began to pitch the high-level course concept to faculty and administration at their respective schools. Dean Julio M. Ottino of McCormick was intrigued with the idea and decided to give the students the opportunity to pitch the concept to the McCormick Advisory Council (MAC). MAC member Edward Voboril, who had spent his entire career in the medical device space, expressed strong interest in assisting in the development of the class and offered to reach out to industry. With support from the MAC and Voboril, Dean Ottino reached out to his peer deans at Feinberg, Kellogg, and the Law School to gain their commitment of faculty to the program. With their support, McCormick invested faculty, staff, and alumni resources to help orchestrate the first NUvention course in the area of Life Sciences and Medical Devices. Concurrent with this initiative, McCormick, with support from Jim and Nancy Farley, launched the Farley Center for Entrepreneurship and Innovation, the largest endowed entrepreneurship center in the Midwest, and asked its newly appointed director, Michael Marasco, to coordinate the NUvention effort.

This history highlights a suggested core element of NUvention: a partnership of students, faculty, alumni, and industry.

In six years, NUvention has evolved from one course to a series of five courses in the areas of Medical Devices, Energy, Web, Digital Media, and Social Entrepreneurship; soon, Nanotechnology and Analytics, will be added. More than 600 students from all NU schools took NUvention classes in the 2011-12 academic year. NUvention has received national recognition, including a spot on Inc. Magazine’s 2011 list of the 10 best entrepreneurship classes. Northwestern is now ranked as the most entrepreneurial college in the Midwest by Forbes Magazine.

Core Elements of NUvention

To maximize NUvention’s success, its founders and partners have strived to develop courses that are:

- **Interdisciplinary**: Students from at least two different NU schools are involved in every NUvention class.
- **Experiential**: Curriculum requires students to engage in product, customer, and business development activities.
- **Team-Oriented**: Students work in multi-school teams during the class.
- **Diverse**: Classes are open to graduate students and advanced undergraduate students.
- **Innovative**: Classes allow students to directly engage in innovation from multiple perspectives not limited to a student’s current academic focus. Technological innovation is an inherent part of the class.
- **Entrepreneurship-Minded**: Classes simulate the process of starting a business or commercializing an innovation. Students are not expected to continue with the business after the course ends, but resources are available to support the students’ post-course efforts.
• **Network-Building**: Classes allow students to build relationship not only among themselves but with alumni, industry, and friends of NU with backgrounds related to the class focus area.

• **Multi-Dimensional**: Faculty are not only a source of learning but also facilitators of learning from other constituencies including students, alumni, industry, NU friends, and the overall external marketplace.

• **Mindful Intellectual Property**: NUvention classes follow NU intellectual property (IP) policy and work closely with INVO to avoid any IP issues. Typically, students retain rights to the IP they develop in NUvention courses.

**Key Dimensions of NUvention**

Many partners and pieces came together to make the NUvention courses possible. Listed below are elements that may be considered in the creation of future NUvention courses; however, not all elements must be present for a specific course.

• **Alumni Chairperson**: An alum that has achieved significant success in the course’s focus area should serve as its chair. He/she may be involved in curriculum design, teaching, and overseeing the class advisory board, and may help facilitate student team networking and marketplace interaction.

• **Alumni and Industry Advisory Board**: Alums, industry members, and friends of NU who have significant experience in the class focus may be valuable mentors for students and offer unique insight for judging midterm and final student presentations.

• **Small Faculty Leadership Team**: A small team of tenured, clinical, and adjunct faculty lead the course, with one faculty member designated as team lead. The alumni chair is often part of this team and may be appointed as faculty.

• **Funding**: Since students may need to build prototypes and engage in the marketplace, NUvention courses may require internal or external funding to cover student and class costs. Recognition/compensation of faculty must also be addressed to ensure long-term support. It is preferable that NUvention teaching be part of a regular teaching load and that any financial support to regular faculty be discretionary fund support, not additional pay.

• **Validated Student Interest**: Students helped create NUvention, so ensuring strong student involvement in course creation and evolution is critical. Student recruitment also requires strong student support for the class. Student representation on the leadership team may be beneficial.

• **Program Management/Logistics Support**: NUvention courses may require more logistical support than a traditional class and are best executed when some level of staff support exists to coordinate the aforementioned key partners. The Farley Center has performed this function for NUvention: Medical Devices, Web, and Energy. Medical Devices has transitioned to Feinberg, and Social Entrepreneurship is based in Kellogg with support from Farley. The Farley Center attempts to support all NUvention classes.

**Approval Process**

NUvention classes are not “owned” by any school or department, but coordinated oversight comes from the McCormick School of Engineering and the Farley Center for Entrepreneurship and Innovation. Any faculty member who would like to propose a course with NUvention branding should draft a one- to two-page proposed course description that addresses the core elements and key dimensions listed above.

The Farley Center can provide assistance in drafting the course description. Typically, approval from the Farley Center and the McCormick Dean’s Office can be obtained within two weeks and will be summarized in a memorandum that details course suggestions and the level of support that the Farley Center can provide.

Please address any questions regarding this process to:

McC Dean’s Office: Richard M. Lueptow, Senior Associate Dean, r-lueptow@northwestern.edu

Farley Center: Michael Marasco, Director, m-marasco@northwestern.edu

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