

Creating an Entrepreneurial University

Inspiring entrepreneurship within a student body doesn't require monumental, elaborate changes in a program or institution. Converting a traditional education to an entrepreneurial education doesn't require complicated, sweeping changes in the faculty and the classroom. A significant transformation can come from something as modest and low key as the collaboration of two faculty members, with the resulting creation of a partnership that allows its members to draw on the others' diverse backgrounds and distinct strengths to change the direction of a program and to excite an entire student body. That's exactly what is happening in the College of Technology and Aviation at Kansas State University! From the collaboration of just two faculty members, a cross-discipline entrepreneurship initiative has commenced, resulting in much excitement among the student body, the faculty, and the surrounding community.

The Salina campus of Kansas State University is home to the College of Technology and Aviation, which is the newest and fastest growing of all the colleges at Kansas State University. One thousand undergraduate students (72 percent male; 28 percent female) are enrolled at the Salina Campus, with 89% of students coming from Kansas. Ninety percent of the student body is under the age of 24, with 70% attending on a full-time basis.

The College of Technology and Aviation offers two- and four-year programs in the fields of engineering technology, aviation (including professional pilot), and business. The academic programs are designed to directly prepare participants for the world of work, and the programs are very application oriented and laboratory intensive. KSU-Salina students learn by doing. Over the last five years, the college has placed 96% of its graduates, and each year several employers actively recruit on campus.

With the size of the campus, the diversity of study, and the large number of active entrepreneurs in the local community, this campus provides the ideal environment for implementation of a broad-based entrepreneurial transformation. With very little fanfare, this transformation has already begun and will continue to be implemented, until entrepreneurship permeates every facet of the college's activities and its students' experiences. This entrepreneurial spirit will guide the college in its future endeavors and will lead to a more recognized campus producing increasingly innovative and business-savvy graduates.

This initiative started with the collaborations of Greg Spaulding, associate professor in the Department of Engineering Technology and Kathy Vratil Brockway, assistant professor in the Department of Arts, Sciences, and Business. Through personal experiences, each had recognized the need for entrepreneurial education at the college and had realized the benefits students would reap from receiving such an education. Informally they began working together to cultivate entrepreneurship among just a few of their students. It grew into something much bigger, and each has been surprised at how powerful such a simple and somewhat unplanned partnership can be.

To date, the collaboration has focused on two main areas: encouraging entrepreneurship through academic advising, and creating an entrepreneurial club to provide a visible outlet for student entrepreneurial activities.

As advisors, Greg and Kathy realized the influence and impact they had on students. Infusing entrepreneurship into their advising consisted of identifying technology students who exhibited strengths in entrepreneurial areas. These students were encouraged, to at a minimum, enroll in some business classes to complement their technology curriculum. At the extreme, students were encouraged to consider earning a Bachelor Degree in Technology Management. This four-year program, which is offered at KSU-Salina, supplements a core of technology courses with relevant business and management courses. This advising process is newly formed and ongoing. Given some time, graduates will be able to provide valuable feedback to improve this very informal method of cultivating entrepreneurs.

Having been involved in other student clubs, Greg and Kathy knew that it would take a strong and active club membership to make an entrepreneurial club successful. In order to attract an active and energized club membership, an exciting and inspiring kick-off event was organized. A successful entrepreneur, Mr. Ralph Lagergren, was invited to spend a day on campus. The day began with a lecture on entrepreneurship. The lecture was open to all students, faculty, and community members. After the presentation, Mr. Lagergren visited an engineering technology design class to discuss design issues faced by entrepreneurs. The day concluded with a reception attended by local employers, interested students, and faculty during which Mr. Lagergren shared his thoughts on cultivating entrepreneurship in the corporate environment. The day sparked much excitement on the campus about entrepreneurship and created a core of students committed to creating an active entrepreneurial club. With faculty guidance and nurturing, the club holds real promise of being a successful and enduring venture.

Greg and Kathy plan to build on their previous successes and continue to promote a gradual entrepreneurial transformation in the College of Technology and Aviation through a multi-component approach.

- Create an entrepreneurial advisory board.
- Develop and support the newly formed student entrepreneurial club.
- Incorporate entrepreneurship across the curriculum.

Entrepreneurial Advisory Board

Of the three components, the Entrepreneurial Advisory Board is pivotal to long term success. The planned entrepreneurial board will consist of accomplished entrepreneurs, dedicated to advancing entrepreneurship across the KSU-Salina campus. The board will be both directly and indirectly involved in each piece of the future initiative. The board will work with the faculty and students in developing and guiding the entrepreneurial club

and will provide input and direction for the curriculum enhancement. In short, the advisory board will ensure that the College of Technology and Aviation will become a center of entrepreneurial education and innovation.

Student Entrepreneurial Club

The second component of our future plan of entrepreneurship is to develop the newly formed entrepreneurial club into an active and dynamic unit.

Proposed club activities include the following.

- Utilize the network of support and resources possessed by the entrepreneurial advisory board.
- Form a business to give students hands-on entrepreneurial experience.
- Host an annual entrepreneurial lecture series.
- Establish a student venture capital fund to be utilized by student entrepreneurs in exploring the marketability of student projects.

When formed, the entrepreneurial advisory board will meet annually with the student club, at the beginning of the fall semester. At the annual meeting, advisory board members and students will cooperatively formulate club activities for the new school year. As club activities progress during the school year, board members may be called upon for assistance and advice. At the end of the spring semester, club members will compile a report of activity outcomes to be distributed to the board.

One standard activity the club will undertake is the formation of a business. Processes will include the development and implementation of a well-planned enterprise, with subsequent evaluation and realignments as necessary.

The purpose of forming the business is to provide an entrepreneurial experience to members of the KSU-Salina entrepreneurial club while simultaneously providing an introductory business venture to Kansas high school students. The mission of the KSU-Salina business will be to design or select a unique product that Kansas high school groups can sell as fundraisers.

Club members will draw upon the entrepreneurial board members' expertise in the creation and operation of the business. Club members will be responsible for all aspects of the business, including marketing, sales, production and/or purchasing, delivery, and accounting.

Club members will generate product ideas with the advice and input of the entrepreneurial board. The students' areas of specialization, as well as the technology applications available within the college, will be strong considerations in choosing potential products.

Early in the fall semester, club members will, with administrative approval, contact the appropriate group at the high school from which they graduated and present to them the fundraising services offered by the business. Interested high school groups may download product information and order forms from the business website and may proceed with their sales campaigns. The high school groups will receive all product orders and collect all sales money. Upon receipt of completed orders and payments, entrepreneurial club members will fill the orders and deliver the products to the high schools. The high school organization will be responsible for delivering the product to their customers.

KSU-Salina students will maintain the company checking account and will prepare financial statements for each semester. Revenues will be the net sales of products, and expenses will include the cost of the product and travel to the high schools.

The faculty co-advisors will “audit” the financial statements. When the faculty co-advisors are satisfied that the business is fiscally acceptable, the business will distribute its profits. The KSU-Salina entrepreneurial club members who assisted with the business will be eligible to share in the profit distribution, which will be paid in the form of scholarships.

Following the first year of operations, the participating college students will be responsible for contacting their high school alma maters and for maintaining relationships with high schools that have been past customers. This will provide the business a rich and constantly increasing customer base.

Based on the success of the club kick-off event, the club is interested in creating an annual lecture series, playing host to regionally and nationally noted entrepreneurs. This annual event will provide opportunities for entrepreneurs to share their messages with appropriate persons on campus and for KSU-Salina to showcase student activities and accomplishments to entrepreneurs. Most importantly, though, the lecture series will fuel student interest in entrepreneurial activities and will create an entrepreneurial culture in tomorrow’s business leaders.

The college faculty will be asked to nominate entrepreneurs from various business backgrounds. Club members will then select one nominee to invite as their on-campus guest lecturer for the annual event. The speaker will be asked to spend an entire day on the Salina campus, participating in planned educational activities.

The day will start with the guest’s prepared lecture to faculty, staff, students, community members, and high school “customers” of the club’s established business. Following the formal lecture, the speaker will visit college classes which specifically relate to the speaker’s areas of interest and experience. The speaker will have opportunities to dialogue with KSU-Salina students. Following the classroom visits, the speaker will meet with the visiting high school “customers” in an informal setting. The expected outcome is that the experience will excite the high school students about entrepreneurship

and will inspire them to become future leaders in the KSU-Salina entrepreneurial scene. The activity-packed day will conclude with a reception attended by the speaker, selected faculty and local business leaders, and the executive board of the student club.

To help increase attendance at upcoming lectures, student club members and faculty advisors will visit local businesses to extend personal invitations for their attendance. The Salina Chamber of Commerce will utilize its network of local businesses to promote interest in the event. Additionally, club members will create posters and other materials to announce the event.

The lecture series will fulfill multiple goals for the student club. It will present current college students with models of innovation and entrepreneurship. It will promote interest in the club among on-campus students and participating high school students. It will provide the club members with valuable leadership experience and will cultivate relationships between the campus and the community business leaders. Most importantly, this lectureship will generate a spirit of innovation and free enterprise across the campus.

Funding possibilities for creating a student venture capital fund are being investigated. It is anticipated that the previously formed entrepreneurial advisory board will act as the *Entrepreneurial Angel Network*, so named for its guardianship characteristics, to assess and evaluate the marketability of student projects and ideas. From among its membership, this group will nominate and select a chairperson who will act as a liaison between the board and the entrepreneurial club membership. This group of experts, through the facilitation of the chairperson, will assist club members by critiquing student projects, identifying marketable student designs and ideas, and assisting students in acquiring outside project funding. If a student project is deemed to be worthy of initial investigation, the panel will have the authority to administer a student venture capital fund to assist with the project exploration.

It will be required that past funded projects that have flourished must make donations to the fund. With some years of history, the student venture capital fund should be self-sufficient. Although this sustainability will take some time for establishment, its success is likely.

Curriculum Transformation

The third and final component of the future plan for entrepreneurship is curriculum transformation.

In the effort to train entrepreneurs, the most fundamental and least visible of the activities will occur in the classroom. The classroom challenge will be to integrate entrepreneurial culture into the existing courses. This integration will not be easy or quick, and it will require support from administration and faculty. The administration will have to show

acceptance and outcome assessment based on the new culture, and the faculty support will entail a shift in teaching style and content. These changes will gradually “kindle the fire” toward a more entrepreneurial way of thinking about learning, work, and life. This entrepreneurial fire will, in turn, result in more opportunities and a better way of life.

To understand the necessary changes, it is first necessary to think about the current status. Presently teachers utilize traditional methods to educate students. This traditional education has served us well, providing discipline and organization. However, it can be argued that in education the pendulum has swung too far, resulting in people who require prompting and a solution method for each problem. The following summarizes the approach used in traditional education.

Traditional education:

- Come on time.
- Sit quietly.
- Listen.
- Do what you are told.
- Answer in the way the instructor expects.

This may have been acceptable in the past where employees performed repetitive tasks. Today, however, employers are looking for self-motivated problem-solvers. In fact, today’s employers are looking for entrepreneurs, and this traditional education is not an environment that breeds entrepreneurs.

The damage done by this type of environment cannot be corrected by having the student attend a course or two about being an entrepreneur. The problem needs to be addressed globally; this means that the education environment needs to be modified. This modification will include the integration of alternate teaching methods, new twists on current material, and the addition of new material into existing courses. The emphasis in the entrepreneurial education approach is as follows.

Entrepreneurial education:

- More "out of the box" thinking.
- Methods not only to solve problems but also to determine what the problems are.
- Projects that allow students to interact with successful entrepreneurs.
- Topics that are more relevant to entrepreneurial situations.
 1. Idea Generation for Entrepreneurs
 2. Legal Forms of Business Structures for Entrepreneurs
 3. Marketing and Sales for Entrepreneurs
 4. Writing a Business Plan for Entrepreneurs
 5. E-Commerce for Entrepreneurs
 6. Finance for Entrepreneurs
 7. Patent and Invention Protection for Entrepreneurs
 8. Human Resource Management for Entrepreneurs
 9. Liability Issues Relative to Entrepreneurs

This evolution will not come quickly or without pain, but as a gradual culture change. It will be necessary to jump-start the faculty in this culture change by providing incentive and opportunity to early adopters to become entrepreneurs themselves and to implement change in their courses

These academic entrepreneurs will need time for the transition and some additional support, including summer support, to determine appropriate topics for inclusion into their courses. Currently an investigation is underway to secure funding sources for the summer support.

To determine the appropriate topics, the faculty will be provided mentors who will guide them in this quest. These mentors will be successful entrepreneurs selected from the industrial advisory board. These faculty members will spend time with the mentors learning about entrepreneurial issues related to their discipline and then evolving a program of study.

These faculty members will take part in local teaching workshops wherein the faculty may participate in discussions about successes and failures of the alternate teaching techniques appropriate for the new culture.

The curriculum transformation will fall into two broad categories: distribution of resources across the disciplines and assessment of activities and results.

To accomplish these tasks, a college-wide request for a proposal will be issued that will provide summer funding to faculty willing to integrate entrepreneurial activities and topics into courses. The proposals received in response to the RFP will be reviewed by the entrepreneurial board; and funding will be awarded based on content, clear and appropriate outcomes, and diversity of disciplines. At the end of the grant, each funded faculty will provide a written and oral presentation to the industrial advisory board about their activities.

Organizing these academic entrepreneurs through this grant will start the transformation of the college to an environment that will breed success. The early adopters will represent approximately 25% of the college's faculty. With each success, whether it is faculty teaching more effectively or students achieving their dreams, everyone will be encouraged to take additional steps toward entrepreneurial activities. This enthusiasm will reach other faculty who will then be brought into the fold and mentored by the core faculty group. The faculty will also lobby the administration to add a "grading" for this type of activity in the annual evaluation process. This type of grading will provide the mechanism that will sustain and grow the integration of entrepreneurial education at KSU-Salina.

Opportunity for a Niche at KSU-Salina

The faculty is aware that entrepreneur education opportunities are currently offered on some college campuses and that Kansas State University-Salina, to ensure a successful and sustaining program, must distinguish itself. To this end, KSU-Salina faculty conducted an informal survey to identify entrepreneurial educational activities presently available at peer universities.

Entrepreneurial Educational Activities	% of positive responses
Offers a certificate or degree in entrepreneurship?	43%
Offers courses in entrepreneurship?	43%
Promotes entrepreneurship through student clubs?	57%
Utilizes an entrepreneurial advisory board?	43%
Partners entrepreneurship and technology through curricula enhancements and/or internship programs?	14%

Based on the results from the informal survey, there is room for additional entrepreneurial educational opportunities. With its technology focus, KSU-Salina has a unique position from which to launch its entrepreneurial transformation. Instead of creating separate entrepreneurship courses or degrees, KSU-Salina faculty intends to infuse entrepreneurship throughout its technology curricula. Ultimately, entrepreneurship will become a commonplace piece of the KSU-Salina student experience. Though the broad-based entrepreneurial transformation will take time to fulfill and will present obstacles that must be overcome, the College of Technology and Aviation looks forward to the journey of transforming its traditional learning environment into an entrepreneurial environment. From the experiences and successes encountered by the KSU College of Technology and Aviation, it is hoped that other programs will be motivated to think about how modest, simple, and low key methods can generate big results. Advancing the way teachers communicate with students and enhance their experiences can come from nothing more than an informal collaboration among faculty members who share a common interest.

Kathy J. Vratil Brockway, CPA (inactive), Assistant Professor

Ms. Vratil Brockway is a graduate of Kansas State University, having earned her Bachelor of Science Degree in Business Administration in 1990 and her Master of Accountancy Degree in 1991. She earned her CPA designation in 1991, while serving as an auditor for Daymon and Associates of Santa Fe, New Mexico. In 1994, Ms. Vratil Brockway accepted the position of Instructor at Kansas State University-Manhattan in the Department of Accounting. While there, she received the Commerce Bank Outstanding Teaching Award; the Baird, Kurtz, and Dobson Outstanding Teacher Award; and the Commerce Bank Outstanding Advisor Award. In 2001, Kathy accepted an assistant professorship at Kansas State University-Salina in the Department of Arts, Sciences, and Business. She teaches courses in accounting, economics, and management.

Greg Spaulding, P.E., Associate Professor

Mr. Spaulding brings a wealth of business and entrepreneurial expertise to the Kansas State University-Salina team. He holds two degrees from Kansas State University, having earned a Bachelor of Science Degree in Mechanical Engineering in 1980 and a Master of Science Degree in Mechanical Engineering in 1984. He served as an engineer for General Dynamics (1980-1983) and as a mechanical engineer in research for Houston Instrument (1985-1989). He was senior engineer at Kansas State University, AMI-MAMTC (1989-1990) before becoming president, chief engineer, and cofounder of Dispensing Technologies, Inc. (1989-1998). Mr. Spaulding holds two U.S. patents, which are Single Degree of Freedom Belt Drive Tensioning System for a Plotter Apparatus (No. 5,280,309) and Automatic Dispensing System for Prescriptions (No. 5,377,919). In 1997, he received the *Faculty of the Year Award* from Kansas State University-Salina.