unnovations



WWW.ROCHESTER.EDU/ENTREPRENEURSHIP • VOLUME 2, ISSUE 2 • SPRING 2010



Kevin Ewer '11 pitches solutions to keep graduates in upstate New York at an idea mining session in Syracuse University's COLAB.

COVER STORY

Universities collaborate to fight upstate's 'brain drain'

OLAB at The Warehouse in Syracuse, N.Y., looks more like a house from MTV's The Real World than a site to solve complex problems. The fourth floor boasts a bean bag chair lounge, graffiti-covered walls, and a foosball table surrounded by chic urban décor. Designed to foster an atmosphere of innovation and imagination, students and faculty are expected to get serious work done at COLAB— Syracuse University's interdisciplinary initiative that brings together individuals with diverse skills and perspectives to work on challenging projects creatively and collaboratively.

Last November, 12 students each from the University of Rochester, Cornell University, and Syracuse University convened at COLAB to tackle the issue of "brain drain" in central and upstate New York. According to the University's Career Center, nearly three-quarters of the class of 2009 have left the greater Rochester area. At Syracuse University, the statistic is estimated at 90 percent.

The students were asked to approach the problem through a threeday charrette titled "Work/Play/Stay." A charrette, sometimes called a design charrette, consists of an intense design-based collaborative project. Charrettes serve as a way of quickly generating a design solution through collaborative work, integrating the aptitudes and interests of a diverse group of people.

The charrette was made possible through Syracuse's Enitiative, funded by a Kauffman Foundation grant, and joint planning efforts among the entrepreneurship centers at the three universities. Neil Tarallo, assistant professor of clinical entrepreneurship at Syracuse's Whitman School of Management, came up with the idea to address brain drain.

Continued on Page 5



Duncan T. Moore Vice Provost for Entrepreneurship

An exciting time for entrepreneurship

A flurry of entrepreneurial activity has taken place throughout the University this past year. All schools held entrepreneurship activities in recognition of the second annual Global Entrepreneurship Week last November. During the week, a team of five Rochester students was named an international winner in the Stanford Global Innovation Tournament (see article on page 2).

The admissions committee for the technical entrepreneurship and management (TEAM) master's program is in the midst of selecting the class of 2011. We have a remarkable group of applicants from more than a dozen countries. Additionally, our current TEAM class recently expanded when electrical and computer engineering student Yu (Joylyn) Cao '09 (BS), '10 (MS) transferred into the program.

There is a number of exciting entrepreneurship events on the horizon. The Prisoner Entrepreneurship Program, an innovative rehabilitation program based in Texas, will be visiting the University on April 8 as part of the Center for Entrepreneurship Lecture Series. The fourth annual Mark Ain Business Model Workshop Series and Competition kicked off in January. Finalists will vie for \$13,500 on May 12.

The Center has worked closely with the Office of Alumni Relations to create a new threepart luncheon series called "Entrepreneurship and Innovation." You can learn more and register at www.rochester.edu/alumnievents.

Dean Raffaella Borasi at the Warner Graduate School of Education is pleased to host a faculty roundtable with visiting scholar William Tierney from the University of Southern California. Among other topics, his books have explored the implications for entrepreneurship and academic capitalism in higher education.

Finally, many folks on campus are working to expand the entrepreneurship initiative with new programs and fresh ideas. I look forward to sharing more in the near future.

Web-based piggy bank network teaches youth to save

Winning a global innovation competition was just the beginning for a team of University of Rochester students. They were one of only two teams from the United States and 22 teams worldwide to be declared winners in the 2009 Stanford Global Innovation Tournament. The contest challenged students to "make saving money fun" and creatively convey their ideas in a short YouTube video. Their concept, "Pass the Pig," stood out from 1,000 entries.

"[The tournament] is designed to encourage students to be entrepreneurial. That is, to identify opportunities, leverage limited resources, and bring their ideas to life," said Tina Seelig '79, executive director of the Stanford Technology Ventures Program and founder of the global competition. "As a Rochester alum, I was delighted to see such a terrific contribution from my alma mater."

Energized by the win, the students plan to develop their initial idea—a Web site of their own design where people share ways to save money via virtual pigs—into a full-scale business plan. Their online community banking service will target underbanked and unbanked populations, especially youth. As an added incentive, customers who bank with Pass the Pig (visit www.passthepig.org) are able to pool their funds with other community members to save for a common goal.

"There's an emotional tie to saving money," said Dan (Eva) Xie '10. "We're going to raise



Eva Xie '10 (front left, then clockwise), Justin Peczkowski '09 (BS), '10 (MS), Eric Wisch '10, Elaina Stover '10, and Jennifer Burger '10 show young people the value of saving money.

awareness on the importance of saving money for yourself and a good cause."

Xie along with three other team members, Justin Peczkowski '09 (BS), '10 (MS); Elaina Stover '10, a Take Five scholar; and Eric Wisch '10, a KEY scholar, attended the Harvard Social Enterprise Conference in February. There, the students sought feedback from fellow social entrepreneurs and listened to valuable advice from international civil leaders.

The team also intends to enter Pass the Pig in the 2010 Mark Ain Business Model Competition. According to Peczkowski, this little piggy is definitely going to market.

"We're planning some unique ways to get the word out," he said. "Think guerrilla marketing, street teams, and possibly even a giant pig costume."

Watch the Rochester team's winning entry at www.youtube.com/watch?v=AvgGoKxZt38.

EASTMAN SCHOOL OF MUSIC

Eastman sponsors workshop on entrepreneurial music schools of future

More than 50 senior administrators from U.S. higher education music schools attended the Eastman School of Music's workshop on "The Entrepreneurial Music School in a Challenging Economy" at the National Association of Schools of Music's meeting last November in San Diego. The workshop, the second one Eastman has sponsored in advance of the national event, featured five sessions with author and prominent social scientist Bob Johansen.

Formerly president and now Distinguished Fellow at the Institute for the Future, Johansen is a forecaster who works with corporations, not-for-profits and the U.S. government to help position their organizations in a manner that will allow them to remain competitive and relevant in the future.

Johansen drew standing-room-only crowds for his presentations that set the stage for the year 2020. Technology, health, hunger, food safety, population shifts, and radical extremism on both the left and the right revealed a VUCA world—volatile, uncertain, complex, and ambiguous. With this background, Johansen facilitated the group as they discussed the world in which today's students will find themselves, and how music schools can better prepare their students to survive and thrive in it.

The event also included a panel of music school leaders discussing entrepreneurial best practices. In addition, students from three music schools talked about their own entrepreneurial initiatives, some of which grew out of the workshop Eastman sponsored in January 2009 on incorporating entrepreneurship in music school curriculums.

Speakers from the Eastman School were Dean Douglas Lowry, Executive Associate Dean Jamal Rossi, and Ramon Ricker, director of the Institute for Music Leadership. Hope Carlson '10E (MM) moderated the student panel, which featured Rohan Krishnamurthy '10E (MA), '13E (PhD). As a winner of Eastman's New Venture Challenge music entrepreneurship competition, Krishnamurthy is in the process of patenting and commercializing his new drum tensioning system.

"The Institute for Music Leadership is concerned not only with preparing Eastman students for America's changing musical and cultural environment, but also working with peer institutions on developing leadership programs and activities," said Ricker. "Students need a broad education, new skill sets, and diversified experiences in addition to exceptional musicianship to meet the evolving challenges of the music industry."

PROFILE

Three of Hearts creates kid-designed games

Founded by brothers Gabriel, 18, and Jacob Blumenstock, 14, Three of Hearts, LLC (visit www.3ofH.com) is an educational board game invention company offering products conceived and designed by kids. The pair has involved study and test groups of all ages to develop their product line: Rockin' with Bach 'n the Gang, Scorched Earth, and Mechanically Inclined.

Jake, who sang in the Bach Children's Chorus, envisioned—at age six—the idea for a board game based on classical music. Committed to the concept, the boys filed the paperwork to start a Honeoye Falls, N.Y.—based limited liability corporation in 2005 with help from their mother and business partner, Claudia.

Two years later, the company entered an IdeaBounce competition for teens with businesses. The event, sponsored in part by the University of Rochester and its Kauffman Foundation grant, offered cash and in-kind prizes to the young entrepreneurs. Three of Hearts took an award and captured the attention of the local media.

Using funds from a group of private investors, a functioning Rockin' with Bach prototype was created in 2008. The game board backdrop features Kodak Hall at Eastman Theatre while the playing pieces are sketches of famous composers drawn by young art students from New York City.

Gabe believed the game boards should be interactive and that Rockin' with Bach would use musical clips directly integrated into the board. Paul Spencer, chief technical officer at Three of Hearts, helped implement Gabe's idea using radio-frequency identification (RFID) technology—a new concept for board games. The company currently has a patent pending. In Rockin' with Bach, a player waves a "Listen" card over the board to activate a clip of classical music. Naming the tune allows a player to collect "Bach Bucks" and advance.

Three of Hearts now focuses its efforts on fundraising to bring Rockin' with Bach to market. Their extraordinary connections include the creators of Trivial Pursuit, the director and senior staff of Weill Music Institute at Carnegie Hall, and Wynton Marsalis's staff at Jazz at Lincoln Center.

"If we were funded tomorrow, we could flip the switch and begin manufacturing, distribution, and advertising," says Claudia. "We're all lined up."

SIMON GRADUATE SCHOOL OF BUSINESS

Simon students learn ins and outs of business as entrepreneurship interns

The Simon Graduate School of Business at the University of Rochester prides itself as a place "where thinkers become leaders." From the close community-driven nature of the student body to intellectual challenges fostered by the faculty, Simon remains a hub for the world's future business leaders. However, for a few select students, Simon has been a place that didn't just allow them to grow into able management leaders but also the real creators of opportunity for themselves and for others.

During the summer of 2009, while the economy was still reeling from the financial market meltdown, eight entrepreneurial interns took on assignments at local firms that enabled them to work at the ground floor of economic growth—small businesses. Peter Dwyer '10S, Zachary Freed '10S, Jacob Heelan'10S, Brian LoVecchio '10S, Jennifer Maine '10S, Karla Perez '10S, Achilleas Tziazas'10S, and Lawrence Unger '10S all worked with the Center for Entrepreneurship to secure internships at the Rochester Angel Network, High Technology Rochester, and Costanza Enterprises. With Wall Street crawling back to life and many popular finance positions severely restricted, these B-school students proved they could create business, rather than just work for it.

The Rochester Angel Network (RAN), a private group of local investors who seek to invest in promising businesses in their most nascent stages, brought on Peter Dwyer to strategically analyze their membership base. Dwyer's experience exposed him to both the inner workings of the organization as well as the crucial knowledge of how to build a business's infrastructure essentially from only a new idea. Importantly for Dwyer, RAN brought to life the deal flow of going through venture capital—from initial contact, to formal company pitch, and through the post-funding aspects as well.

Fellow Simon students Zachary Freed and Brian LoVecchio also got a close-up look at what it takes to breathe life into business based on their shared experiences at High Technology Rochester (HTR), a nonprofit firm special-

We look forward to continuing the HTR-Simon relationship this coming year and beyond."

—James Senall '99S, president, HTR



Karla Perez '10S interned at Costanza Enterprises, a real estate management and investment firm. last summer.

izing in fostering economic growth throughout the greater Rochester region. LoVecchio credited the Simon curriculum, with its focus on quantitative analytics, as vital in his preparation for performing market viability analysis for aspiring businesses. LoVecchio noted his Simon education taught him how to "approach problems differently and figure out what the core issue really is."

Freed came to HTR already armed with experience as an entrepreneur: "Along with a group of fellow students, we put together a consulting company that then sold our services to prospective clients. HTR heard about us through one of our connections at a breakfast event. They liked our entrepreneurial spirit and then called us in for an interview."

"High Tech Rochester greatly values our relationship with the Simon School and the caliber of terrific interns that we've had the pleasure to work with," said James Senall '99S, president of HTR and director of RAN. "[The program] is a real benefit to the students, as well as the local companies, and we look forward to continuing the HTR-Simon relationship this coming year and beyond."

The Center for Entrepreneurship, with support from trustee Mark Ain '67S, works with the Career Management Center to pair Simon talent, exemplified above, with promising opportunities. Companies interested in sponsoring an intern may call (585) 276-3500. First-year students can apply to the 2010 program by submitting a résumé to cfe@rochester.edu.

KEY pair commended for diversity initiative

Two Kauffman Entrepreneurial Year students, Monica Patel '10 and Aleida Sainz '10, were recognized for their KEY project, "Opening Doors to Higher Education for Refugee Youth," at the first annual Presidential Diversity Award nominee luncheon in January. The pair has partnered with the Admissions Office to organize a workshop for refugee high school students to learn about the college application process, financial aid, and career opportunities this spring. The students are also working to establish a scholarship fund for refugee youth. "We hope to keep these two missions going after we graduate with the help of the different student organizations on campus," said Patel.

University creates vice provost for technology transfer policy position

The University of Rochester has created a new position—vice provost for Technology Transfer Policy—as part of a multi-year effort to increase the number of science and engineering discoveries that can be developed by entrepreneurs and turned into technologies for the benefit of society. Gail Norris, former director of the Office of Technology Transfer for the College, was selected as the vice provost. In her new role, Norris develops strategies for the licensing and commercialization of University intellectual property, fosters corporate collaborations, and assists in the establishment of startup companies that use technology developed at the University. Corine Farewell succeeds Norris as director.

Former prisoners start businesses after graduating PEP

The Prison Entrepreneurship Program (PEP) will visit Rochester this spring as part of the Center for Entrepreneurship Lecture Series. Former felon and PEP graduate Marcus Hill will discuss his experience at 4:30 p.m. on April 8 in Gleason 318/418. Established in 2004, PEP is a pioneering non-profit organization, uniting executives and inmates through entrepreneurial passion, education, and mentoring. Based in Houston, Texas, the program has successfully graduated more than 500 former inmates, with a recidivism rate of less than 10 percent. Recently released PEP graduates have started 55 new businesses, and more than 80 percent find employment within 30 days of release.

W-E-B @ Simon's new faces after two years

The Women Entrepreneurs Blog @ Simon (visit www.webatsimon.com) celebrates its two-year anniversary in April 2010. Alyssa Gruber '10S, an entrepreneur with a growing handmade jewelry business, succeeds Marita Greenidge '09S as editor. Two new bloggers include Jackie Marchand '95S, president and CEO of WomanTours, Inc., a women-only bicycle touring company; and Claire Siegrist, a Rochester-area middle school student participating in the Young Entrepreneurs Academy. W-E-B @ Simon, which provides information on business plan development, financing, and legal direction, has been viewed over 16,300 times since its inception and is the best performing of all Simon blogs.

ALUMNI NOTES

1979 Gloria Horsley (BS), '81N (MS), founder and chairperson of The Open to Hope Foundation, hosts the syndicated talk radio show, "Healing the Grieving Heart," which can be heard Thursdays at noon E.S.T. on VoiceAmerica.

1980 SV Life Sciences, a venture capital advising and managing firm, recently announced the appointment of Patrick T. Ryan (BA) as a venture partner in the firm's Boston office.

1986 Christopher Cotton (BS), '87 (BA), '90 (MS), president and CEO of ASE Optics Inc., was honored with a Leadership Award at the 2009 Rochester Regional Photonics Cluster/New York Photonics annual meeting.

1987 Sydor Instruments, LLC, cofounded by Michael Pavia (BS), was named no. 54 in the Rochester Top 100, which annually recognizes the fastest-growing privately held companies in the nine-county region of Rochester, N.Y. Sydor Instruments began with a patent license for a novel imaging technology developed at the University of Rochester's Laboratory for Laser Energetics.

Lisa J. Walsh (BA), vice president of wealth management and financial planning specialist for Morgan Stanley Smith Barney, was appointed to a three-year term on the WNY Women's Fund Board of Trustees. The organization, based in Buffalo, N.Y., invests in programs that focus on systemic change and bring best practices to programming for women and girls.

Social entrepreneur Awista Ayub (BS) recently published *However Tall the Mountain: A Dream, Eight Girls, and a Journey Home,* a book about her experience bringing Afghan girls to the United States to learn soccer and social skills as well as to build their confidence.

2002 Orient Paper, Inc. (NYSEAmex: ONP), a leading manufacturer and distributor of diversified paper products in Hebei, China, announced the appointment of Wenbing Christopher Wang (S, MBA) to its Board of Directors.

2003 Sean Murtagh (S, MBA) was recently selected for promotion to the rank of captain in the United States Coast Guard. He is currently detailed to the Department of Homeland Security, where he is the acting deputy executive secretary. He was also selected to be a military fellow at the Center for Strategic and International Studies, starting in summer 2010.

innovations volume 2, ISSUE 2 • SPRING 2010

Editor/Layout Supervisor Natalie Yager Antal

Contributors

Alan Blank Justin Fleming '13, *Campus Times* Jessica Gambacurta '10 Christopher Haight '115 Jonathan Sherwood '095 Helene Snihur

Vice Provost for Entrepreneurship **Duncan T. Moore**

Entrepreneur-in-Residence **Bob Tobin**

Entrepreneurship University-wide

- Eastman School of Music
- Hajim School of Engineering and Applied Sciences
- · School of Arts and Sciences
- School of Medicine and Dentistry
- School of Nursing Center for Nursing Entrepreneurship
- Simon Graduate School of Business Administration
- Warner Graduate School of Education and Human Development

Are you an entrepreneur?

Stay connected.
Address correspondence to:

The University of Rochester Center for Entrepreneurship Innovations

1-211 Carol Simon Hall P.O. Box 270360 Rochester, NY 14627-0360

Phone (585) 276-3500

E-mail cfe@rochester.edu

Web site

www.rochester.edu/entrepreneurship

To receive this publication on a regular basis, please submit your name, company, and address to Innovations via phone, e-mail, or mail.

Key to School Abbreviations

- E Eastman School of Music
- M School of Medicine and Dentistry
- N School of Nursing
- S Simon Graduate School of Business
- W Warner Graduate School of Education

SEND US CLASS NOTES Please submit your professional news and announcements to Innovations at 1-211 Carol Simon Hall, P.O. Box 270360, Rochester, NY 14627-0360 or e-mail cfe@rochester.edu.

Brain drain

Continued from Page 1

"Typically, it's industry leaders and government officials that talk about this issue, but—as entrepreneurs—we know that customers' opinions are very important, so it seems logical that we should ask the students what they think," said Tarallo.

Nominated by faculty, the students were chosen from a variety of disciplines and schools. During the first two days of the event, students worked together in six teams of six to come up with creative solutions to retain smart, hard-working young people following graduation. They presented their suggestions to an audience of academics, community leaders, local and state officials, small business owners, and media on Sunday.

Several major factors contributing to the issue were addressed at the charrette. "I feel like the main cause [of brain drain] is a lack of positive image associated with New York," said April Hu '11, one of the participants from Rochester. "Like 'there's nothing to do; it's cold and dreary."

In addition to students' poor perception of the region, the presenters cited the lack of marketing and communication about the positive, such as low cost of living, short commute times, and the numerous social and cultural activities available. Students said university career centers need to highlight the benefits of working in small- to mid-sized cities.

The students recommended several reform measures. Each group suggested types of government incentives, ranging from student loan forgiveness to help with buying a house in the area to tax breaks for starting a company. Another popular solution included strengthening community-based education programs, so that students have enduring ties to their local environments.

According to charrette participant and online business owner Andrew Agnello '11, one specific way to curb the trend of "bright flight" is through an "entrepreneurship incubator program." This system would encourage students to set up businesses in the region in exchange for funding from a combination of the university and the city.

Bob Tobin, associate director of the Center for Entrepreneurship, who represented Rochester faculty at the charrette, was impressed with the groups' ideas. "What I would really hope for now is that the information gleaned from the students is acted on."

Watch the Work/Play/Stay charrette video at colab.syr.edu and access a link to presentations by all six student teams.

CALENDAR

Entrepreneurship Events for Spring 2010

WEDNESDAY, MARCH 3

Kalmbach Lecture Series at the Simon School*: Howard Cohen, Partner, Twin Lakes Capital and Director and CFO, MacKenzie-Childs, LLC; 4:30–5:30 p.m.; Schlegel 207

THURSDAY, MARCH 4

Entrepreneurship and Innovation Series:

"Inspiring Innovation: Technology Transfer at the University of Rochester"; Ralph Kuncl, Provost and Executive Vice President; Robert Clark, Dean of the Hajim School of Engineering; and Peter Robinson, Vice President and COO of the Medical Center; 12–1:15 p.m.; Genesee Valley Club; (Register at rochester.edu/alumnievents)

TUESDAY, MARCH 9

Kalmbach Lecture Series at the Simon

School: "Investment Performances using Closed-End Funds and Indexing"; George Karpus, CEO, Karpus Investments; 4:30–5:30 p.m.; Schlegel 207

THURSDAY, MARCH 11

Kalmbach Lecture Series at the Simon

School*: Rick Plympton '87 (BS), '99S (MBA), CEO, Optimax Systems; 12:40–1:20 p.m.; Schlegel 102

FRIDAY, MARCH 12

Rochester Youth Year Applications Due*: (Visit youthyear.org)

TUESDAY, MARCH 16

CFE Presentation for Prospective Rochester Early Business Scholars

(REBS)*: 10–11 a.m.; Goergen 110

THURSDAY, MARCH 18

Kauffman Entrepreneurial Year (KEY)
Applications Due*: 5 p.m.; Lattimore 312

THURSDAY, APRIL 1

Mark Ain Business Model Workshop

3: "Panelist Session: Open Q&A"; David Hessler, Executive Lecturer, Simon School; Duncan Moore, Vice Provost and Professor, Simon School and Hajim School; and Bob Tobin, Entrepreneur-in-Residence and Associate Director, CFE; 4:30–5:45 p.m.; Gleason 318/418

WEDNESDAY, APRIL 7

Kalmbach Lecture Series at the Simon

School*: Jim Doyle, Jr., Executive Director, ProVenture (Far East) Ltd.; 4:30–5:30 p.m.; Schlegel 103

THURSDAY, APRIL 8

Center for Entrepreneurship Lecture

Series*: Prisoner Entrepreneurship Program; 4:30–6 p.m.; Gleason 318/418

FRIDAY, APRIL 9

Center for Entrepreneurship Roundtable*:

Prisoner Entrepreneurship Program; 9–11 a.m.; Alumni & Advancement Center, Seminar Room

SATURDAY, APRIL 10

ArtAwake*: Art and music festival in a vacant downtown bank; 5 p.m.–2 a.m; 35 State Street, Rochester; (Visit artawake.org)

THURSDAY, APRIL 15

Farash Lecture Series at the Simon

School*: Ed Mitzen '95S, Founder, FingerPaint Marketing; 12:40–1:20 p.m.; Schlegel 103

Retaining Young Talent: Students Tackle 'Bright Flight' in Upstate New York*:

7–8:30 p.m.; Alumni & Advancement Center, Seminar Room

MONDAY, APRIL 26

Mark Ain Business Model Competition

Entries Due: 4 p.m.; Center for Entrepreneurship, Carol Simon Hall 1-211; Submit electronic copy to andrea.galati@ rochester.edu

FRIDAY, APRIL 30

Celebration of Entrepreneurship Luncheon and Rochester Regional Business Plan Contest Finals*: 9

a.m.–1:30 p.m.; Hyatt Regency Rochester, Grand Ballroom; (Register at htr.org)

Charles and Janet Forbes Entrepreneurial Competition*: 1–4 p.m.; Dewey 2-110D

TUESDAY, MAY 11

BME Senior Design Poster Session*

WEDNESDAY, MAY 12

Mark Ain Business Model Competition Finalists' Presentations and Judging:

4-5:30 p.m.; Schlegel, Eisenberg Rotunda

WEDNESDAY, JUNE 2

Entrepreneurship and Innovation

Series: "Teaching Entrepreneurship at the University of Rochester"; Duncan Moore, Vice Provost, and Ramon Ricker, Senior Associate Dean and Director of the Institute for Music Leadership, Eastman School of Music; 12–1:15 p.m.; Genesee Valley Club; (Register at rochester.edu/alumnievents)

^{*} Check online at rochester.edu/entrepreneurship/events for the latest information.



Center for Entrepreneurship

1-211 Carol Simon Hall P.O. Box 270360 Rochester, NY 14627-0360

Change Service Requested

SPOTLIGH

Senior finds success with online 'cottage gear' company

Like many Rochester seniors, mechanical engineering major Brian MacMillin '10 has a busy schedule. He is enrolled in a graduate-level engineering course, plays saxophone in the University's Wind Symphony, and takes piano lessons at the Eastman School of Music. He is also the founder and sole labor force of a profitable company, Outdoor Equipment Supplier, LLC.

Through his online storefront (visit www. outdoorequipmentsupplier.com), MacMillin offers a line of ultra lightweight tarps made from his own design. A self-taught manufacturer, MacMillin cherry picked advice and instructions from do-it-yourself hiking Web sites to create his first tarp on his mother's sewing machine at age 14. He brought in more than \$1,000 in revenue that year, averaging six hours to construct each unit.

Fast forward to today. Last year, MacMillin sold 425 tarps for \$40,000, \$26,500 of which was profit. He also cut the time to manufacture each unit down to 90 minutes. Without spending a cent on advertising, he estimates he has sold nearly 1,000 tarps in multiple countries, including France, China, Australia, and South Africa.

MacMillin credits his success to word-of-mouth, including satisfied customers' frequent Web posts on five major hiking forums. He also actively seeks client feedback and tracks his competition, other 'cottage gear' companies—one- or two-person operations—and large retailers like REI, to continuously improve his product.

Recently, he released a Generation 4 MacCat tarp that weighs 10 percent less than its predecessor. Through refinements in construction, such as reinforcing the edges with half-inch grosgrain ribbon instead of the three-quarter inch size,



Brian MacMillin '10, founder of Outdoor Equipment Supplier, LLC, cuts a bolt of Spinnaker Ultra-Light fabric for his tarps using a handmade template in Douglass Dining Center.

MacMillin is able to charge an extra \$25 for the tarp. "People will spend a lot of money to save an ounce," he says. "If each thing [in your pack] weighs two and a half ounces less, you save three pounds. Day in and out, that's a nice change."

These days, MacMillin, a hiking enthusiast and Eagle Scout, is spending more time indoors than on the trails. He is often found unfurling 500-yard bolts of silicone-impregnated nylon, ordinarily used in parachute construction, on the cafeteria tables in Douglass Dining Center.

"At home, I'm in my garage on an unheated, cold concrete floor," he says. "Here, it's warm, and I don't have to bend over quite as much."

Still, MacMillin looks forward to creating his own workshop space. He plans on renting a two-bedroom apartment in Rochester while he completes his master's in mechanical engineering at the University next year. One bedroom will house a new industrial sewing machine that runs at speeds three times faster than his current machine—a necessary upgrade since he projects a 35 percent increase in sales in 2010.

While his friends are searching for jobs in a difficult market, MacMillin realizes his hard work has paid off. "I made the determination that I could, even as a full-time student, live relatively comfortably on what I do."