This has been another extraordinary year for NC State Entrepreneurship. Last year, after we officially launched the NC State Entrepreneurship Alliance in November of 2017, the Princeton Review ranked us No. 19 in the nation for undergraduate entrepreneurship. This year, our momentum has propelled NC State to leap eight spots to No. 11!

One of the new initiatives we started this year was the Entrepreneurship Student Ambassador program. Students serving as Entrepreneurship Ambassadors help with entrepreneurship programming, events and outreach activities across campus, including planning NC State’s activities for Global Entrepreneurship Week. In return, they get in-depth exposure to the entrepreneurial ecosystem at NC State and exclusive social and networking opportunities. Response to the first year of this program has been overwhelmingly positive, and the ambassadors have been an invaluable resource in supporting our special events, such as the ACC Inventure Prize competition.

Speaking of the ACC Inventure Prize, as I write this we have just finished up with an exciting two days of hosting students, faculty and staff from across the ACC who were here to compete in the fourth season of this annual competition. This was the first time the event has been held outside of Atlanta, and we were honored and humbled this year to bring the competition to Raleigh. The finals were held on Wednesday, April 17, in Stewart Theatre, and the competition was broadcast live in six PBS markets across the ACC. Congratulations to the first-place winners from the University of Virginia!

Another notable accomplishment this year was the establishment of a new entrepreneurship track in the undergraduate curriculum in the Department of Computer Science. Many of our computer science alumni have gone on to be successful technology entrepreneurs. Having a curriculum option specifically designed to support students interested in technology entrepreneurship will only help to increase those numbers.

Last, but not least, we’re very excited about a new partnership between HQ Raleigh and the Entrepreneurship Garage. We will be opening a brand-new Garage space across from the Hunt Library this summer, to be co-located with HQ Raleigh’s Centennial Campus coworking space and incubator. This fall, our student entrepreneurs will be rubbing elbows with people working in real-world startups in the heart of Centennial. This partnership extends the relationship between the very successful and award-winning Entrepreneurship Clinic program, HQ Raleigh and the Poole College of Management.

I hope you enjoy the many stories in this year’s report. Can’t wait to see what the next year brings! Go Pack!

Tom Miller
Senior Vice Provost, Academic Outreach and Entrepreneurship
McPherson Family Distinguished Professor of Engineering Entrepreneurship
Mission Statement

NC State Entrepreneurship supports, promotes and advances a culture of entrepreneurship throughout the university by providing resources, fostering collaboration and enhancing communication in support of NC State students, faculty, staff and alumni.

Table of Contents

04 Extraordinary Results
06 Inside the Classroom
10 Outside the Classroom
16 Continued Support

Phone: 919.513.3676
Web: entrepreneurship.ncsu.edu
Social: @NCStateENT
A total of 123 residents moved into the Albright Entrepreneurs Village.

Entrepalooza drew a crowd of more than 1,700 attendees.

13 students launched the Entrepreneurship Student Ambassador Program.

The Princeton Review ranked NC State as the No. 11 best undergraduate program for entrepreneurs.

The Wolfpack Investor Network reached $9 million in investments.

More than 130 students competed in the 2019 Make-a-Thon, a three-day sustainability challenge.

Sixteen students traveled to Silicon Valley to experience the startup scene in the Bay Area.

The winners of the 2019 Lulu eGames were announced at the Lulu eGames LIVE event on April 3.

A new cohort of Miller Fellows was selected to receive support as they pursue their ventures full time in the six months following graduation.

A total of 123 residents moved into the Albright Entrepreneurs Village.

Advancement for Women Entrepreneurs relaunched.

Students visited startups in New York City as part of NC State Entrepreneurship’s annual fall break trip.

NC State celebrated Global Entrepreneurship Week with 10 events.

30 Social Innovation Fellows presented their solutions to social and environmental challenges at the Mid-Year Reception.

NC State Entrepreneurship announced a new partnership with HQ Raleigh and plans for a new Entrepreneurship Garage on Centennial Campus.

NC State Entrepreneurship announced a new partnership with HQ Raleigh and plans for a new Entrepreneurship Garage on Centennial Campus.

There were 148 entries for the 2019 Lulu eGames, NC State’s annual startup competition.

Albright Entrepreneurs Village students visited startups and creative ventures in Seattle.

NC State hosted the ACC InVenture Prize startup competition.

Three teams began the Andrews Launch Accelerator.
#11
Undergraduate Entrepreneurship Program
2019 Princeton Review Best Colleges for Entrepreneurs
Building an entrepreneurial mindset begins inside the classroom. Students across all academic disciplines have the opportunity to explore entrepreneurship through NC State’s many academic offerings.

Over the past year, faculty worked to create innovation throughout the entrepreneurship education curriculum.

Read more about the academic highlights from the 2018-2019 year:
- Agribusiness Entrepreneurship Program
- Arts Entrepreneurship Minor
- Certificate in Interdisciplinary Entrepreneurship
- Department of Computer Science Entrepreneurship Track
- Engineering Entrepreneurs Program
- Entrepreneurship Clinic
- Technology Entrepreneurship and Commercialization Program
Agribusiness Entrepreneurship Program

This program focuses on training undergraduate students from the College of Agriculture and Life Sciences in value creation in the agricultural and agribusiness space, from ideation to new venture.

In spring 2019, three agribusiness entrepreneurship courses were made permanent at the university level, and a fourth is on its way for the fall semester of 2019. Additionally, the program has announced an agribusiness entrepreneurship concentration for the agricultural business management major and an agribusiness entrepreneurship minor for all other majors.

Arts Entrepreneurship Minor

The arts entrepreneurship academic minor helps students who are interested in the arts learn how to start a variety of arts businesses. Arts entrepreneurship students can be found all across campus, majoring in everything from business to textiles. In the 2019 Lulu eGames, arts entrepreneurship student Toni Contini won $3,000 in funding for her company, WRAPPED, an all-inclusive headwrap company that provides ready-to-wear and custom wraps that empower customers through self-expression while challenging social stigmas.

Certificate in Interdisciplinary Entrepreneurship

The undergraduate certificate in interdisciplinary entrepreneurship has been designed to be applicable to students in all areas of study at NC State. In the first seven months of availability, 16 students have declared an intent to complete the certificate, and the certificate proposal has been requested for benchmarking at universities including the University of West Virginia and the University of Wollongong.

STUDENT HIGHLIGHT

Charles Eason is a May 2019 graduate from the College of Agriculture and Life Sciences. He majored in agricultural business management with a concentration in agribusiness entrepreneurship and has been putting his entrepreneurial mindset to use as the founder and operator of Hoi Toiders, a mobile shellfish hatchery.

Hoi Toiders aims to provide improved genetics specifically tailored to each grower. Charles is hoping to move into a full-scale vertically integrated seafood production business in which his team both produces seed and provides a marketing platform and purchase guarantee for seafood producers on the back end. Over the course of the 2018-2019 academic year, the company raised $30,000 to develop their full-size prototype.

STUDENT HIGHLIGHT

Katie Lawson is among the first 16 students to declare their intent to complete the undergraduate certificate in interdisciplinary entrepreneurship. A student in the College of Engineering, Katie applies her entrepreneurial skill set to her team’s efforts as a member of the NC State Motorsports Baja Car Team. She has also been accepted to serve as an Entrepreneurship Student Ambassador for the 2019-2020 school year and will take up residence in the Albright Entrepreneurs Village starting in fall of 2019.
Inside the Classroom

**Academics by the Numbers**

<table>
<thead>
<tr>
<th>6,500+</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Credit Hours Offered in Entrepreneurship</td>
<td>Faculty Members Teaching Entrepreneurship Courses</td>
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<tr>
<td>3,300+</td>
<td>7</td>
</tr>
<tr>
<td>Undergraduates Enrolled in Entrepreneurship Offerings</td>
<td>Colleges Offering Entrepreneurship Courses</td>
</tr>
</tbody>
</table>

**Department of Computer Science Entrepreneurship Track**

With 47 tenured and tenure-track faculty, seven teaching faculty, and more than 600 graduate and 1,100 undergraduate students, the Department of Computer Science has begun to cultivate entrepreneurship themes within its academic offerings. In spring 2019, the department announced the addition of the entrepreneurship track for undergraduates and held its inaugural Entrepreneurship Fair, bringing together thinkers and doers to promote collaboration in computer science.

**Startup Highlight**

In December, Undercover Colors, a company started in the EEP, released its first product to the public: the SipChip, a portable, gender-neutral disc that can be used to test beverages for the presence of drugs commonly known as “date-rape drugs.” The company has spent the last few years developing and perfecting their product and has raised millions of dollars in investment.

**Engineering Entrepreneurs Program**

The Engineering Entrepreneurs Program (EEP) helps seniors in the NC State College of Engineering learn how to launch a startup company. A number of EEP teams competed in the 2019 Lulu eGames, and several of the teams placed in the competition, taking home $14,000 in funding. Additionally EEP team Portal Technologies placed in the Lulu eGames and was selected to represent NC State at the ACC InVenture Prize, the Atlantic Coast Conference’s annual startup competition.
**Entrepreneurship Clinic**

The NC State Entrepreneurship Clinic integrates research, teaching and real-world experience. Inspired by the university hospital teaching model, the clinic serves as a classroom for experiential learning and a locus of interaction between the university and entrepreneurial ventures. During the 2018-2019 academic year, the clinic experienced 26% growth in student enrollment, representing 24 different concentrations. Students in the clinic completed more than 60 company projects over the course of the year, working with local startups and with innovation teams within larger companies, such as Wells Fargo and PVH Corporation.

“The diverse background and functional expertise of the NC State Entrepreneurship Clinic provides a great complementary, independent perspective on key strategic assessments through the lens of someone outside of the financial services industry. It’s a valued perspective, especially for Wells Fargo, because everything we do revolves around the customer. So having multiple approaches to understanding our customers is a valuable exercise for our team.”

— Danny Sanford, Digital Business Development and Innovation, Wells Fargo

**Technology Entrepreneurship and Commercialization Program**

The Technology Entrepreneurship and Commercialization (TEC) Program teaches graduate students from business and technical disciplines the innovation and entrepreneurial processes necessary to transform new technology platforms into successful businesses. Since 1995, TEC startups have raised more than $500 million in funding for the commercialization of new innovations.

**STARTUP HIGHLIGHT**

TEC startup Locus Biosciences attracted an $818 million collaboration and licensing deal with Janssen to develop precision antimicrobials using its CRISPR-Cas3 technology platform. The startup’s technology is designed to kill target bacteria by irreversibly destroying their DNA, while leaving the many species of good bacteria in the body unharmed.
NC State’s co-curricular offerings are designed to complement the learning taking place inside the classroom. A packed schedule connects students, alumni and industrious community members who share a clear focus on developing the next generation of entrepreneurial thinkers and doers.

Learn more about the co-curricular growth that occurred at NC State over the 2018-2019 academic year:

- Advancement of Women Entrepreneurs
- Albright Entrepreneurs Village
- Entrepalooza
- Entrepreneurship Garage
- Entrepreneurship Student Ambassador Program
- Libraries’ Makerspaces
- Mentors Program
- Patent and Trademark Research Center
- Poole College of Management Business Sustainability Collaborative
- Social Entrepreneurship and Innovation
Advancement of Women Entrepreneurs

Advancement of Women Entrepreneurs (AWE) supports and engages women who want to explore entrepreneurship by creating a sense of community and providing workshops, networking events, panel discussions and speaker events. The group relaunched in fall 2018. In their first year back, AWE engaged more than 100 participants in their events and recruited 13 ambassadors to help them pursue their mission.

Student highlight

College of Engineering student Madaline Yun is the founder of RapidCat Inc., a company designed to use technology to give retail investors the same opportunities in foreign exchange that large institutions have. RapidCat aims to expand the opportunity for success in the foreign exchange market to the everyday person. Madeline is an AWEbassador, representing AWE in the College of Engineering.

Albright Entrepreneurs Village

The Albright Entrepreneurs Village, located on Centennial Campus, is NC State’s living and learning community for student entrepreneurs. After starting the year with 123 student residents, the village closed out the 2018-2019 year with more than 180 students registered for the following year. As a result of this 46% growth, the village will take over the final remaining floor of Innovation Hall, filling the entire building with student entrepreneurs.

Student highlight

Nick Sischo, a senior in environmental engineering and a resident of the Albright Entrepreneurs Village, was one of a team of four NC State students selected in fall 2018 to participate in Innovate Durham, a program that gives entrepreneurs the opportunity to test their innovations. The team’s startup, TRASHR, seeks to use the “internet of things” to make waste management more efficient. They successfully tested their prototype on municipal trash receptacles and gained valuable insight from mentors and the city of Durham, which they are using to deploy their product for institutional clients.
Outside the Classroom

Entrepalooza

Entrepalooza, NC State’s annual entrepreneurship and innovation festival, drew huge crowds in 2018, with more than 1,700 attendees. Students, alumni and community members alike enjoyed interactive displays highlighting NC State’s entrepreneurship programs, along with student and alumni innovations.

The event also included the Minute to Pitch it competition, where a last-minute announcement increased the $1,000 audience choice and judges’ choice awards up to $2,500 each. The winning student teams were Dinsta, creating technology for cleaner, healthier teeth in less time than old-fashioned brushing and flossing, and Math Mundo, a multilingual math education platform.

Entrepreneurship Garage

The NC State Entrepreneurship Garage is a venture creation and prototyping space designed for student entrepreneurs. In January 2019, the Garage announced a partnership with HQ Raleigh that will lead to the opening of a new Garage space on Centennial Campus in summer of 2019. The new space will include an upgraded makerspace available to both students and HQ members along with a posh new coworking area, complete with rentable office suites and all-access conference rooms. With the expansion to the new space, the Entrepreneurship Garage will continue to expand student programming and use the partnership with HQ to connect students and area entrepreneurs better than ever.
Outside the Classroom

Entrepreneurship Student Ambassador Program

NC State Entrepreneurship welcomed the first cohort of Entrepreneurship Student Ambassadors in fall of 2018. The group comprised 13 undergraduate student leaders involved in a wide range of entrepreneurship programming, from the Engineering Entrepreneurs Program to the arts entrepreneurship program and beyond. The ambassadors engaged the entrepreneurship community at NC State through events and campuswide programming, and they took point on running Wolf Den, NC State’s Shark-Tank-style pitch competition during Global Entrepreneurship Week in November 2018.

Libraries’ Makerspaces

The NC State University Libraries’ Makerspaces provide a wealth of prototyping resources to entrepreneurs at NC State, including 3-D printing, electronics, laser cutting and tools for working with textiles, as well as associated learning experiences and one-on-one support. Through March 2019, the D.H. Hill Jr. Library Makerspace added 1,155 new users in the 2018-19 fiscal year, and its total user base stands at 4,125, most of whom are undergraduate students.

STUDENT HIGHLIGHT

Poole College of Management student Meg Grant served as the vice president of communications for the Entrepreneurship Student Ambassadors in the 2018-2019 academic year, but her interest in entrepreneurship doesn’t stop there. Meg is also the co-founder of Homework Homie, an application that compiles homework assignments from across multiple sites into one list. Meg conducts marketing, business development and customer relations for the venture, and she has grown the user base from the ground up, with monthly users now totaling more than 1,200 students.

EVENT HIGHLIGHT

A total of 127 students from nine NC State colleges came together to compete for nearly $5,000 in cash and prizes at the 2019 Make-a-Thon innovation challenge. The Libraries partnered with the University Sustainability Office and several living and learning villages from across campus, including the Albright Entrepreneurs Village, to host Make-a-Thon in February 2019. The three-day sustainability challenge tasked students with developing innovations aimed at creating positive environmental impact.
Outside the Classroom

Patent and Trademark Resource Center

The Patent and Trademark Resource Center (PTRC) at NC State University Libraries is a center designated by the U.S. Patent and Trademark Office to receive and house copies of patent and trademark materials, to make them freely available to the public and to actively disseminate patent and trademark information. In the 2018-2019 academic year, the PTRC conducted 97 individual consultations, several of which assisted startup teams and entrepreneurial students in learning about the patent process, finding specific patents for business research and conducting patent searches with the goal of self-patenting.

Mentors Program

The NC State Entrepreneurship Mentors Program facilitates interaction between industry experts and entrepreneurial-minded students at NC State. Over the 2018-2019 academic year, more than 100 active mentors and students participated in monthly mentor program events, interacted virtually through the mentor platform and engaged in countless one-on-one coffee meetings. One of the many highlights from this year was the launch of Connect, a virtual mentor platform driving increased interaction and engagement throughout the year between monthly gatherings.

Global Entrepreneurship Week

9 Participating Programs

10 Events

400+ Attendees

$1,200 Awarded

Patent and Trademark Resource Center

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Poole College of Management Business Sustainability Collaborative

The B Corp Clinic connects NC State students to local and global companies to help them strengthen their social and environmental impact. During the 2018-2019 academic year, the B Corp Clinic connected students from NC State, Duke University, UNC-Chapel Hill, NC A&T State, Elon University and Wake Forest University to companies from across the country, including Counter Culture Coffee, Descalza, HQ Raleigh, Rufty Homes, SunSense Solar and more to work on consulting projects to strengthen their sustainable business models. The B Corp Clinic does not stand alone in its efforts; five academic institutions across the U.S. and Canada have followed suit, replicating the B Corp Clinic’s successful model.

Social Entrepreneurship and Innovation

NC State Social Entrepreneurship and Innovation provides students with co-curricular opportunities to engage with community and campus partners to apply their passion and skills to change the world. The program reaches more than 600 students, faculty, staff and community stakeholders through numerous educational offerings that range from targeted events, lectures and workshops to a year-long co-curricular fellowship experience.

Since its inception in September 2017, the Social Innovation Fellows program has fostered innovative creativity and exploration for 50 students, 10 of whom were selected to return to the program as senior fellows for the 2018-2019 academic year. The program has also connected 10 social innovation-focused venture partners with student teams to further develop and advance their enterprises. Eight team mentors, leaders in their respective entrepreneurial fields, help guide the fellows in their project development.
Reaching the Community

NC State Entrepreneurship resources extend beyond current students. Faculty, staff, alumni and the greater entrepreneurship community can all benefit from the university’s support and resources.

Learn more about the programs that offer continued support to faculty, alumni and the Raleigh-area entrepreneurship community:

› Alumni Entrepreneurs Network
› Andrews Launch Accelerator
› Applied Synergies Partnership
› Chancellor’s Innovation Fund
› Entrepreneur Initiative for Food
› Miller Fellowship
› NC State Office of Research Commercialization
› Wolfpack Investor Network
Alumni Entrepreneurs Network

The Alumni Entrepreneurs Network connects alumni entrepreneurs with each other to share knowledge and support NC State in becoming a premier university for entrepreneurship. The network consists of more than 1,100 alumni from all stages of the business startup cycle. Their signature event, the Alumni Entrepreneurs Showcase, draws 20 alumni-founded startups each year to give presentations at the Park Alumni Center.

Matthew Davis is a co-founder and the chief marketing officer of Reveal Mobile, a Raleigh-based company that helps customers connect online with audiences near their physical locations. He lives in Chapel Hill with his wife and three children, including twins who were born while he was getting his MBA degree at NC State. He was one of the original members of the NC State Alumni Entrepreneurs group, and he served as the group’s president for two years.

“Not only did we learn skills we will continue to use throughout our lives, but we were able to build a network of relationships to help us grow as well.”

— Karly Pavlinac, founder, BnaFit

Andrews Launch Accelerator

The NC State Andrews Launch Accelerator (ALA) provides NC State startup founders the opportunity to jump-start their entrepreneurial journey. A summer-long program, ALA supplies entrepreneurs with the funding, resources and guidance to advance their new ventures. In 2018 four companies were selected to receive $48,000 and participate in ALA. Since completion, two of the ventures have successfully raised investment seed capital in excess of $350,000.
Continued Support

Applied Synergies Partnership

A primary goal of Applied Synergies Partnership (ASaP) is to provide experiential entrepreneurship education based on the NC State Poole College of Management TEC program model for the benefit of Apex Friendship High School students studying entrepreneurship. Since AsAP’s inception in 2016, students in the program have completed more than 70 business plans, engaged with more than two dozen community members and organizations, and achieved an average 98.67% proficiency on state-mandated high school end-of-course assessments (with 100% proficiency in 2017 and 2018). This success can be attributed to a rigorous and relevant hands-on learning strategy and approach to entrepreneurship pedagogy.

Chancellor’s Innovation Fund

Established in 2010 by NC State with the support of Chancellor Randy Woodson, the Chancellor’s Innovation Fund (CIF) awards up to $75,000 to support short-term commercially focused research projects. The CIF assists NC State innovators with reduction to practice and technology development needed to strengthen the commercial potential of intellectual property disclosed to the Office of Research Commercialization.

Since its inception, CIF has awarded $3.1 million to 45 projects. CIF-funded projects have generated $53 million in follow-on funding, $1.1 million in licensing revenue and 45 license agreements, and 24 startup companies have been launched.

Entrepreneur Initiative for Food

The Entrepreneur Initiative for Food assists entrepreneurs in bringing shelf-stable foods to market by providing testing services and process recommendations. In the 2018-2019 academic year, the initiative provided 363 process recommendation letters and 357 nutritional facts panels, and through their online course they certified 199 individuals for manufacturing acidified foods.
Miller Fellowship

The Dr. Thomas Kenan Miller III Program bridges the gap between graduation and pursuing a startup full time by providing a short-term salary and other resources for the first six months after graduation. The 2018-2019 cohort of Miller Fellows consisted of seven new graduates representing three colleges on campus. Each fellow was a founder or co-founder of his or her venture, resulting in seven unique ventures in total. At the end of the Miller Fellowship, three fellows continued with their ventures in the Raleigh-Durham area and have achieved milestones including product launch, fundraising and customer acquisition. The remaining fellows are making significant contributions to the local startup ecosystem.

Office of Research Commercialization

The Office of Research Commercialization supports entrepreneurs seeking to commercialize NC State-owned intellectual property.

One of the office’s newest offerings is the NC State NSF I-Corps Site Program, a semester-based course designed to teach researchers and technologists about entrepreneurial principles and practices and to give them hands-on experience in exploring potential real-world applications of their technologies through interviews with potential customers and end users. Their I-Corps teams have generated $1.5 million in follow-on funding, and six startup companies have been launched following completion of the program.

Wolfpack Investor Network

The Wolfpack Investor Network (WIN) showcases NC State University’s best and brightest alumni by curating university-related investment opportunities for its investor members.

In the 2018-2019 academic year, WIN raised more than $4 million through 150 investor members, with two $1 million deals for two North Carolina startups with NC State alumni ties.
NC State University promotes equal opportunity and prohibits discrimination and harassment based upon one's age, color, disability, gender identity, genetic information, national origin, race, religion, sex (including pregnancy), sexual orientation and veteran status. 150 copies of this public document were printed at a cost of $5.30 per copy.