



PAUL COLLEGE FIRE PROGRAM

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Forthcoming in *Educationally Effective Practices Within the First-Year Seminar*

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Institutional Description

The Peter T. Paul College of Business and Economics offers degrees in Business Administration, Economics and Hospitality Management. It has a total enrollment of 2600 undergraduate and 300 graduate students. Roughly 65% of the student body is male and 35% is female.

Paul College is one of five colleges at the University of New Hampshire; a land, space and sea grant public university. Of the 15,000 students in attendance, approximately 50% are New Hampshire residents and the rest predominately come from the Northeast. It is a Carnegie Research High University that cares deeply about teaching. The University of New Hampshire offers a traditional residential experience with nearly all of its 3200 first year students living on campus. The student body is very homogenous and reflects the broader population trends that exist in the State of New Hampshire.

Program Description

THE FIRE PROGRAM

The First-year Innovation and Research Experience, widely known to students as FIRE, provides a comprehensive and immersive first year experience designed to encourage students to embrace academics, engage in a meaningful social culture, and to recognize the skills, knowledge, and experiences necessary to reach their own goals.

All Paul College first-year students are required to take First-year Academic Experience I and II (PAUL 405 and 406) which provides the academic foundation for the program. The program spans both fall and spring semesters with students earning 1 credit per semester. The course meets for an hour a week and students are expected to spend roughly two hours a week on assignments outside of class.

Before the semester begins, students are enrolled in the course and assigned to a team of 20 – 25 students. Students are randomly assigned to teams based on their major. With an entering class of approximately 700 students, thirty teams were created.

While the academic foundation is grounded in a credit bearing course, the FIRE Program is an integrated, team-based, game like experience. The program is designed to build a community of engaged learning, while tapping into the value of the traditional residential experience. The core program learning goals are to:

- Inform students of the resources and opportunities available to UNH students for career and academic assistance;
- Develop skills needed to succeed as a UNH and PAUL student, as well as in the business and professional spaces;
- Encourage students to get involved throughout campus;
- Give each student an opportunity to stand out;
- Teach students how to:
 - Approach and solve complex problems using a variety of different techniques.

- Effectively present a business concept and the corresponding research.
- Develop a team culture and be a part of a team.
- Guide students to potential majors, internship opportunities and the corresponding career paths;
- Introduce the importance of mentorship and the value of the broader UNH community network in a “low-risk” environment.

The program relies on three foundational pillars to achieve the learning goals: Mentorship, Grand Academic Challenges and Gamification.

- **Mentorship:** Peer advisors and alumni mentors assist new students in learning how to effectively transition to college, take advantage of the many opportunities that are available to them, and develop the skills needed to be successful not only in college but also in their professional life.
- **Grand Academic Challenge:** The grand academic challenges give the students a sense of shared purpose as they work in teams to develop a business plan tied to a current issue/problem.
- **Gamification:** Gamification provides a methodology, set of design principles, and the mechanics to create a social architecture designed to increase engagement, motivation and enthusiasm.

MENTORSHIP

Each team is assigned a peer advisor who serves as the course instructor and team leader. The peer advisor is a junior or senior that is selected based on meeting certain criteria and through an application and interview process. They are enrolled in a separate two credit course, PAUL 696: Supervised Student Teaching, which meets weekly. Taught by the Director of Undergraduate Programs and the FIRE Program Coordinator, the course provides needed training and an opportunity for advisors to share experiences and provide feedback that can be used to make adjustments in real time to ensure program success.

To support the efforts of the peer advisor and help each team achieve success, an alumni mentor is also assigned to each team. Many alumni mentors are engaged, younger alumni who want to give back to the College, but are not yet in a position to contribute financially. Most live in proximity, however with the use of technology, it is possible for mentors to interact with their team without physically visiting campus.

Alumni mentors bring a missing perspective to the first year experience. They represent a bridge to the “real world” and have practical experience that reinforces some of the important points introduced during the first year. While students do not need to decide what they would like to do after graduation, it is important from the time they arrive on campus to be thinking about how their experiences today will affect the opportunities that will exist in the future. It is never too early to develop those essential skills such as the ability to communicate clearly, an awareness of the world around them, how to work effectively as a member of a team and professional business etiquette.

To help plan events and make sure that the program is meeting the needs of our students, we asked each team to nominate a student to become a member of the Igniters group. Having shown an extraordinary level of involvement and leadership, the Igniters student group has become the advisory board for the FIRE Program.

GRAND ACADEMIC CHALLENGES

The centerpiece of the experience are the academic challenges. Each team spent the first four weeks of the semester earning points in the “game” to be the first to select their year-long academic challenge.

The current challenges are:

- Colonizing Mars
- Living Virtually
- Prolonging Life
- Powering the Northeast
- Surviving Extreme Weather

The main goal of the grand challenge is to help students develop those skills needed to achieve academic success by introducing current topics that have real business applications. The grand challenge design has students view these potential opportunities through different lenses in order to help them understand the value of viewing large problems from a broad perspective. The lens approach consists of four perspectives: Economic, Political, Social and Techno/Scientific. Every team was broken up into four groups with each group assigned to one of the lenses.

To assist in the research process we worked closely with a Research Librarian who created [research guides](http://libraryguides.unh.edu/fire/) for each one of the grand challenge topics (<http://libraryguides.unh.edu/fire/>). A number of activities and mini-games were created to help the students identify the resources and develop the skills needed to be successful in their research endeavor.

In the spring semester, each team focused on identifying a business opportunity associated with their grand challenge and were required to turn that idea into a business plan. At the university’s Undergraduate Research Conference in April, each team competed against the other teams that have the same grand challenge topic in front of a panel of judges to determine the best plan.

GAMIFICATION

The entire FIRE Program is designed around a series of healthy competitions that together create a giant game. Students earn points for their grand challenge work and are also given an opportunity to advance in the game by participating in university events and activities. By creating a nexus that facilitates the making of connections that can serve as either a substitute or complement for what exists in their residence hall, students in the FIRE Program are provided with an expanded pool of opportunities for building meaningful social relationships.

A majority of a student's point total are earned through engaging in campus events, programs, and joining organizations. To counteract the common student concerns that prevent students from participating (shy, not wanting to go alone, etc.), the FIRE Program offers points for participation and gives bonus points for bringing a friend or if all members of a team choose to participate in the same event. Thus, in addition to preparing students to be successful academically, the FIRE Program is also designed to assist students in achieving social success.

In addition to serving as a facilitator, points also serve as a source of feedback in the form of a reward for engaging in productive behavior or as a tangible sign of success. By creating subcategories for tracking student achievement, a larger number of students can be recognized while at the same time promoting a set of positive values and establishing expectations for behavior. Small successes become a source of personal pride and particularly for the student who is struggling academically, gives them an alternate means for achieving personal success.

To reinforce those positive feelings associated with success, prizes are given at various events and for reaching point levels. FIRE branded merchandise, special access to helpful information or recognition in the form of a Luminary Award at a FIRE event are some of the rewards associated with advancing through the game. In addition, leaderboards are used so that students and their teams can track how they are doing. Enabling students to compare themselves (or their team) relative to others serves as a powerful source of motivation as students realize that with only a little more effort, they can leap ahead of others.

INDIVIDUAL LEADERBOARD WEEK 3 FEBRUARY 15, 2016		
1	PETER WHITE (FIREPROOF)	325
2	CHRISTINE LEE (THE PYRO'S)	320
3	ANDREW HULTGREN (SQUAA)	302
4	CAITLIN COXEN (THE FIRE FIGHTERS)	295
5	RYAN ANASTASI (FUEGO 5)	290
6	VICTORIA CORTEZ (FUEGO 5)	280
7	REBECCA CONNORS (THE FIRE FIGHTERS)	275
8	SAMANTHA LULKA (WILDGA\$H)	248
9	DEVIN MCMAHON (WILDGA\$H)	228
10	MICHAEL RILEY (WILDGA\$H)	198

TEAM LEADERBOARD WEEK 9 MARCH 28, 2016		
1	FIREPROOF	278.81
2	THE FIRE FIGHTERS	275.50
3	WILDCASH	223.22
4	DYNAMIC INNOVATORS	127.82
5	MONEY 20	120.70
6	WILDCATS WITH ATTITUDE	110.00
7	FUEGO 5	98.70
8	THE PYRO'S	93.70
9	THE FIRM	93.33
10	THE ALLGOODS	92.50

COURSEWORK

PAUL 405 (fall semester) focuses on the academic transition to college. There are three graded academic assignments in the fall semester. The first assignment is an Academic Autobiography in which students are asked to self-reflect by examining their past academic experience and creating a profile of their perceived academic strengths and weaknesses. They also write a Lens Summary which asks them to view the academic challenge topic through an assigned lens. Finally, students work in small groups for the Lens Presentation in which they share key information from the perspective of an assigned lens.

These assignments require students to work on key academic and career skills that involve writing, research and presentation.

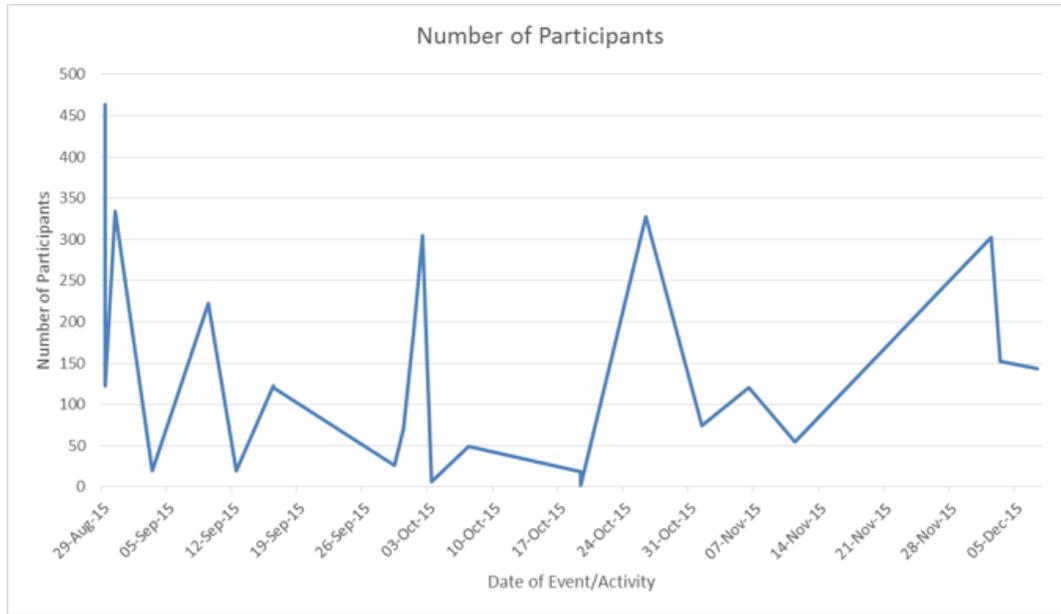
PAUL 406 (spring semester) begins to focus on the student's academic and professional career. Students are given information on the major and minor options at the university as well as introduced to other opportunities such as study abroad, national student exchange, research grants and full semester internship programs. The alumni mentors are actively engaged in helping students with resume writing, networking and identifying skill sets. To further develop these skills, the FIRE Program hosted a networking reception and career boot camp. All of these initiatives led to a doubling of first year participation at the spring career fair.

During the spring semester, there were four graded assignments. The first assignment was to create a resume (students were required to draft and participate in resume reviews prior to a final resume submission). Three other assignments span the semester as part of the academic grand challenge and required students to pitch a preliminary product or service plan, contribute to the team's final business plan either through a written business plan and presentation or a poster presentation, and a group progress report in which they evaluated the work of themselves and the team. Throughout the semester, students were challenged to further develop their writing and presentation skills as well as beginning to create a professional presence.

Evaluation

The Freshman Academic Experience course has a long history in Paul College. However, in recent years students seemed disengaged as they questioned the significance of the assignments and attended class meetings with silence and some amount of resentment. The introduction of the new FIRE Program has led to a major change in student attitudes and engagement. Attending class has become an opportunity to connect with friends. By building on each other, assignments have a rationale and reason with an achievable goal at the end. More Paul College students are joining clubs and participating in extracurricular activities. The library guides supporting the grand challenges are the most visited webpages at the UNH Library.

The effect that building the first year experience around a giant game has on student behavior is best illustrated by the graph below.



Spikes in activity reflect increased activity on the part of teams to earn additional points right before a major event in the game. For example, the spike located around the second of October as teams looked to gain a last minute advantage in order to move up the rankings so that they could increase their chances for being able to select the grand challenge of their choice.

An end of the fall semester survey indicated that half of the students have participated in at least 5 events/activities, 84% of the students made friends within their FIRE team and 96% of students felt that they could contact their peer advisor with a problem or an issue. Student organizations have reported increased involvement by Paul students in campus organizations. Our own internal tracking at events indicated that over 100 students attended 15 events/activities.

An examination of academic performance at the end of fall semester showed overall increases in cumulative GPA from the previous year's class as shown below.

	2015 Fall		2014 Fall	
	# of Students	Percent of Class	# of Students	Percent of Class
At or above 3.0	405	60.72%	369	54.03%
At or above 3.5	178	26.69%	142	20.79%
At or above 3.75	95	14.24%	49	7.17%
At 4.0	28	4.20%	9	1.32%

First semester courses that focus on writing and presentation skills, such as Introduction to Business, First Year Writing and Ethics all had large increases in course grades.

Class	2015 # of Students	2015 Fall	2014 # of Students	2014 Fall	Percent Change
ADMN 400	585	3.29	614	3.02	8.94%
ENGL 401	105	3.44	141	3.24	6.17%
PHIL 430	305	3.16	22	2.76	14.49%

Implications

FIRE is designed to strengthen the tie between academics, the student experience and career preparation by combining a strong academic foundation with the values instilled by mentorship and the design principles associated with gamification. It supplements the general first year curriculum populated by large introductory courses with a more personalized team-based academic challenge related to a current issue. An overarching game framework is used to create a shared purpose making it easier for students to form meaningful social relationships that emerge from academics rather than dorm life. In doing so, it harnesses the power of healthy competition to motivate students and build self-esteem.

The FIRE Program can easily be adapted for use outside of a business school environment. Expanding student involvement is a desired outcome regardless of academic discipline or structure. Basic research and career skills are applicable regardless of major or career interest. The interdisciplinary approach that underlies the grand challenges is consistent with the goals and aspirations of any general education program. The business plan can easily be changed to a public policy recommendation, opportunity for scientific discovery, or something else that would be relevant to a subset of the student population at a particular university.