

# *Development of the ETA 020 Freshman Seminar Course*

by

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## **Introduction**

Research has shown that the freshman year can be crucial for the success or failure of first year students. The first-year experience for undergraduate students has been a topic of concern in our College for some time now – especially when it relates to student success, satisfaction, and retention (Hensel, Byrd, Myers, 2005; Onishi, 2005; Ryan, Glen, 2004).

K-State at Salina students come from diverse backgrounds, different levels of academic preparation, age levels, and socio-economic backgrounds. Some are not even sure if they are in the right place to start with. These factors can make the transition to post-secondary education very difficult for most students, especially the freshman class.

This paper discusses the evolution of the Freshman Seminar course (ETA 020) from inception to its current configuration. Topics include the events and forces driving the format and topic changes of the course, outcome expectations by faculty, students' course evaluation, and plans for expected changes.

## **Theoretical Background**

Student retention has been studied and measured over the years through a myriad of approaches, such as graduation rates and persistence. Regardless of how it is measured, retention is very important from both the student, as well as the educational institution, perspectives. A good review of the history of transition courses is presented by Ryan and Glenn (2004).

It is clear that college freshmen are faced with a complex new environment upon graduation from high school. In a study that focused on mentoring first-year students, Salinitri (2005), stated that:

As students enter university, they find factors that adversely affect their transition from high school to university, for example, new found independence, homesickness, time management, finances, or different teaching styles. Further, because of the demands of a knowledge-based society, students from various cultures, socioeconomic backgrounds, different learning styles, or with low entrance grades are entering university. As a result, several factors affect student success: inability to meet university academic standards, inability to adapt to a new social and academic environment, changes in personal goals and aspirations, lack of

motivation and clearly defined goals, priority of other commitments such as work or family, financial difficulty, or incongruence between an institution's orientation and approach and that desired by an individual. (page 854)

Some other studies concentrate on how extra-curricular activities would help students get “familiarized” with this new environment and become successful by developing a sense of belonging and at the same time developing his/her sense of responsibility (Milem and Berger, 1997).

Several studies have suggested how to design a freshman program that would support the transition from high school to college and increase the chance of academic success, as well retention rates (Austin, 2006; Hensel, Byrd, & Myers, 2005; Onishi, 2005).

Some studies have suggested that the program should be delivered as small seminar gatherings that would stimulate interaction with faculty and advisors but also encourage interface with other students:

the focal point of the first year should be a small seminar taught by experienced faculty. The seminar should deal with topics that will stimulate and open intellectual horizons and allow opportunities for learning by inquiry in a collaborative environment. (Boyer, 1998, p. 21)

The development of a Freshman Seminar at K-State at Salina is based on current and past research on the topic of student’s success and retention. However, most of the implementation details are specific to the Engineering Technology Department and input from students, faculty, and staff.

## **Practical Background**

Kansas State University’s College of Engineering has been utilizing a freshman seminar for several years now. The course offered for students new to the College of Engineering is called New Student Orientation and Seminar (NSOS). Its main focus is on connecting new students to other students as well as resources within the college and university.

The concept of a Freshman Orientation class at K-State at Saline was first conceived in the Retention Taskforce Report submitted to the Dean of the College of Technology and Aviation in Spring 2000. The report included several initiatives such as:

1. Improving the advising system.
2. Improving the New Student Orientation Program (NSO).
3. Providing orientation classes for students at risk.
4. Improving academic assessment to identify at-risk students and improving developmental coursework.
5. Improving instructional effectiveness.

The orientation class proposed by the task force was directed at students with high risk of failure or dropping out of school. This class is known now as EDCEP 111, University

Experience. In 2002, David Delker, then Engineering Technology Department Head, proposed each engineering technology section provide an introductory seminar class for all students entering as freshman. The proposed seminar class would differ from the University Experience class in that it would not be specific to at-risk students but be a class directed to the general engineering technology student population. The intent of the class was to add focus to the students' understanding of the degree, allow the interaction between students and faculty, facilitate advising opportunities, and promote retention of students. The structure of the class was very open, with each of the four sections running independently and scheduling meetings in several formats. Some sections scheduled meetings once a month over the semester, others using weekly meetings clustered at the beginning of the semester.

In 2004, all curriculums in the ET department were updated to require two semesters of common course ETA 020, Engineering Technology Seminar. The class was scheduled to meet once per month over each of the two semesters. Each section was still responsible for conducting meetings individually, however joint meetings occurred when topics were considered to be appropriate across curriculum lines. Faculty became aware that these multiple class offerings generated a great deal of redundant effort by the faculty responsible for the ET seminar classes.

In Fall 2005, seemingly separate events were set in motion by a series of conversations with visiting employers to the K-State at Salina campus during a mock interview event. Employers expressed concern that graduates were not prepared for employment after school in several non-academic areas. Areas of concern were managing money and personal finances, understanding employment benefits, personal and professional conduct appropriate to the workplace, ethics, working in groups, ability to communicate effectively, and understanding the importance of their contribution to the business plan. Two faculty members and the Career Services Director proposed developing online modules addressing some of the employers' concerns. During the preliminary development phase one nagging question kept being raised: "Where in the curriculum will these modules be used?" The great concern was that the modules could be developed and then never be seen or used by students because no teacher would incorporate them into a lesson plan.

In Spring 2006, Dr. John DeLeon, ET Department Head, requested that faculty review the freshman seminar course with the intent to increase its impact on student success and retention. Faculty from each degree program met and suggested that the seminar classes be combined into a single class to provide critical size, efficiency of faculty effort, and to increase integration of students in different curriculums into a common department.

The topics identified in the previous seminar sections were incorporated into the new seminar course. This new course also provided a good venue to incorporate the employers' topic modules. These topics were also infused into the ET Seminar topics list. Because of the number of topics, it became clear the seminar class needed to meet more often. The ET faculty decided to modify the class structure to meet once a week for one semester. Past ET Seminar instructors also felt the once a week schedule would bring continuity to the class and keep the students engaged. The topic schedule was arranged to front-load the semester with topics of immediate need for students. The scavenger hunt provided students knowledge of

where to find campus services and resources. The Honor and Integrity module was timely for student transition into the elevated expectations of college academics. Handling stress was a topic for the beginning of the semester, as was the scheduling of money and time. Topics later in the semester were devoted to student career and personal planning and development. Since the scheduled time was drastically increased, the two semester requirement was reduced to one semester. After much discussion, the 0 credit hours status was retained even though the class was structured like a 1 credit hour class. The concept of the 0 credit was that the course is a “value added” course of great importance and K-State was “giving” it to the student at no cost. With the rising K-State tuition rates, the 0 credit hour provided a way to add a course to the curriculum without adding additional hours and cost to the student.

### Course Survey

Following are the results of a course survey conducted at the end of the Fall 2006 semester. The survey instrument addressed all topics covered in the semester and employed a Likert-type scale: 1-Strongly Disagree, 2-Disagree, 3-Neither Disagree, Nor Agree, 4-Agree 5-Strongly Agree. The intent was to identify topics that should or should not be considered for inclusion in upcoming offerings.

<b>Week/Topic</b>	<b>Measure</b>	<b>Average Score</b>
<b>Week 1</b> Scavenger Hunt	I was interested in the topic.	2.97
	Useful in my professional/academic development.	3.33
	Include in future ETA 020 classes.	3.92
<b>Week 2</b> Honor System	I was interested in the topic.	3.53
	Useful in my professional/academic development.	4.14
	Include in future ETA 020 classes.	4.33
<b>Week 3</b> Managing Stress	I was interested in the topic.	3.86
	Useful in my professional/academic development.	3.97
	Include in future ETA 020 classes.	4.18
<b>Weeks 4 and 10</b> Budgeting Your Money	I was interested in the topic.	3.72
	Useful in my professional/academic development.	4.17
	Include in future ETA 020 classes.	4.39
<b>Week 5</b> Time Management	I was interested in the topic.	3.19
	Useful in my professional/academic development.	3.94
	Include in future ETA 020 classes.	3.94
<b>Week 6</b> Preparing a Resume	I was interested in the topic.	3.46
	Useful in my professional/academic development.	4.31
	Include in future ETA 020 classes.	4.31
<b>Week 7</b> Graduate Panel	I was interested in the topic.	3.94
	Useful in my professional/academic development.	3.97
	Include in future ETA 020 classes.	4.29
<b>Week 8</b> Critical Thinking and Decisions	I was interested in the topic.	3.19
	Useful in my professional/academic development.	3.86
	Include in future ETA 020 classes.	3.86

<b>Week/Topic</b>	<b>Measure</b>	<b>Average Score</b>
<b>Week 9</b> Drugs and Alcohol Abuse	I was interested in the topic.	3.14
	Useful in my professional/academic development.	3.42
	Include in future ETA 020 classes.	3.76
<b>Week 11</b> Diversity	I was interested in the topic.	3.29
	Useful in my professional/academic development.	3.72
	Include in future ETA 020 classes.	3.72
<b>Week 12</b> Choosing an Appropriate Career	I was interested in the topic.	4.00
	Useful in my professional/academic development.	4.25
	Include in future ETA 020 classes.	4.25
<b>Week 13</b> Ethics Case Study	I was interested in the topic.	2.86
	Useful in my professional/academic development.	3.62
	Include in future ETA 020 classes.	3.83

During the last class period of the ETA 020 class, students were surveyed to determine the impact of the topics and presentations over the semester. The survey instrument, see Appendix A, endeavored to determine the interest of the students prior to the presentation and their perceived importance after the presentation. The survey will guide the inclusion and approach of topics in future semesters.

Noteworthy in the survey results is the value increase from the interest in the topic and the usefulness of the topic. In each topic, students rated the topics usefulness higher than the interest value. And in each case, the students agreed the topic should be included in ETA 020.

Would have worked harder if the class was 1 hour credit.	4.06
Assignments were of appropriate length and difficulty for topics covered.	3.69
I would like to have junior or senior students within my technology involved in some of the ETA020 activities.	3.53
Class Size	0 Too Small      28 About right      6 Too Large

Additional questions related to the class structure were also answered by the students. Responses to these questions will also be considered in structuring future offerings of the course.

### **Conclusions and Recommendations**

Based on the survey results and anecdotal evidence, the course was a success. The survey provides evidence that the students valued the topics.

Anecdotal evidence includes attendance: aside from three students who never attended even one class, only 5 of the 44 students excessively missed class. Throughout the semester a majority of the students were in the classroom ten minutes prior to the class starting time.

One of the difficulties of this type of course is to deliver topics in a timely manner to impact the student's development. In the Fall 2006 course offering, the career exploration module fell later in the semester. Of particular note, it was given well after the resume-building module. Many freshmen don't seem to understand the importance of resume-building as it relates to them. Furthermore, many don't see the importance of internships and career-related employment while they are in school. By offering the career exploration prior to the resume-building module in future course offerings, it is hoped that students will be better equipped to link career goals to internship and part-time employment opportunities, and in turn link those to the importance of resume-building.

The use of student mentors is another possibility for future offerings. Utilizing the most reliable upper-class students would be of particular value in the administration of the course as enrollment in the course continues to grow. The experience of being a student mentor would also provide valuable leadership experience for those students. Survey results regarding the use of student mentors was indecisive, but not unexpected considering the students have not had similar experiences for comparison.

The current enrollment of approximately 45 students was near the maximum for the classroom. Should enrollment increase for this class, it will be necessary to offer the class in more than one section. Because of the number of people involved and the amount of preparation that goes into each module, it would be beneficial to offer two sections simultaneously with each section being given a different module during a given period. Currently, this course is scheduled to be offered in both the spring and fall semesters. Should the enrollment for the spring semester fall below 15, it may be impractical to offer because this course requires the attention and time of so many people.

## References

- Austin, D.B. (2006). Building on a foundation of strengths. *Educational Horizons*, 84, 176-182.
- Boyer, E. (1998). *Reinventing undergraduate education: A blueprint for America's research Universities*. Menlo Park, CA: Carnegie Foundation for the Advancement of Teaching.
- Hensel, R.A.M.; Byrd, Jr., J.; & Myers, W.R. (2005). Designing a freshman seminar program to support student success. *Proceedings of the 2005 American Society for Engineering Education*, 15 p.
- Milem, J. F.; & Berger, J. B. (1997). A modified model of college student persistence: Exploring the relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, 38, 387-400.
- Onishi, A. (2005). A teacher: The power of teaching students about their strengths. *Educational Horizons*, 83, 206-209.
- Ryan, M.P.; & Glenn, P.A. (2004). What do first-year students need most: Learning strategies instruction or academic socialization? *Journal of College Reading and Learning*, 34, 4-28.
- Salinitri, G. (2005). The effects of formal mentoring on the retention rates for first-year, low achieving students. *Canadian Journal of Education*, 28, 853-873.