Planning for Veterans' Success: The Degree Map as an Advising Solution

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Abstract

Due to the expected influx of veterans attending college, it is critical that higher education not only be cognizant of the projected growth but also take a proactive stand and properly plan for these students' success. Academic planning begins with advising professionals developing open communications and becoming equipped to guide veteran students through the matriculation process. Veteran students often have difficulty interpreting university scheduling and frequently have access to only a limited advising staff for course selection information, which may prompt some to not persist in an online degree program. This study's findings suggest the degree map is a powerful tool to help students through class selection and sequencing. The degree map data provides transparency that will contribute to institutional and governmental monitoring for ongoing outreach to student veterans.

Introduction

Degree mapping began as a simple concept to answer the age-old question: How long will the degree program take to complete? Answering this question is particularly important for veteran students who are learning at a distance, have a limited benefits horizon, and often have difficulty deciphering their official university schedule. In many cases, not fully comprehending degree requirements created hesitancy for new veteran students which eventually led to delayed matriculation. Additionally, the majority of interaction between veteran students and their academic advisors is done through e-mail or telephone without face-to-face interaction. With these challenges in mind, the degree map was created to make students envision graduation from Day 1 as well as remove any mental barriers that might be associated with matriculating into their degree program. In its purest description, the degree map is a document that outlines degree requirements and recommended course sequencing along with the corresponding academic term, providing students a map to follow to complete the degree.

Quantitative evidence, as reported by Embry-Riddle Aeronautical University's analytics reporting tool, Campus Solutions, suggested that students using degree maps are more likely to enroll in academic

programs, continue to take courses, register for more classes per term, and have better graduation rates than those students who do not use a degree map. During the 2012–2013 academic year, the year after instituting degree maps, Embry-Riddle experienced a 32% increase in student matriculations, a 7.9% increase in student retention and a 5.02% increase in graduations (Embry-Riddle Aeronautical University, 2014). Both continuing student populations and graduation rates continued to grow during the 2013–2014 academic year.

Degree map examples can be found in the appendix. There is a First-Year Degree Map, which focuses on general education requirements (Appendix A), a Bachelor of Science in Aeronautics Degree Map (Appendix B), an Master of Science in Project Management Degree Map (one class per term) (Appendix C), and a Fast Track Master of Aeronautical Science Degree Map (two classes per term) (Appendix D). The study is significant to student veterans transitioning into the educational environment who may feel overwhelmed by the lack of structure they encounter. Degree mapping appears to have benefits to the academic advising department that advises veteran students from a distance. This study seeks to answer the following question: Do degree maps have a positive influence on student veterans' success?

Literature Review

The number of student veterans making their way onto the nation's college campuses continues to increase (Vacchi, 2012). Colleges and universities have not experienced student veteran enrollment numbers this significant since World War II (U.S. Department of Veterans Affairs, 2013). The Veterans Administration estimated "that more than 2 million veterans of the Iraq and Afghanistan wars would be eligible to pursue postsecondary education" (Vance & Miller, 2009, p. 1). The Post-9/11 G.I. Bill, the Veterans Educational Assistance Act, is the nation's largest federal student aid program (U.S. Department of Veterans Affairs, 2012). At the end of fiscal year 2012, the U.S. Department of Veterans Affairs reported that over 646,000 veterans, including certain veterans' family members, were already receiving educational benefits under the Post-9/11 G.I. Bill. Combine those new recipients with the nearly 300,000 veterans already receiving education benefits from programs predating the Post-9/11 G.I. Bill, and there are nearly 1 million veterans seeking higher education and training. The total payment made to or on behalf of the beneficiaries exceeded $10 billion (U.S. Department of Veterans Affairs, 2012).

A number of studies gauge higher education's ability to define and provide the appropriate services for the student veteran's unique needs. As the influx of student veterans continues to grow, it is critical for higher education institutions to examine programs, services, and practices that meet the distinctive needs of this distinctive student population in order to lay the foundation for a successful degree completion. Much of this research has set out to collect institutional readiness data in the traditional college setting. Kim and Cook (2009) surveyed 723 higher educational institutions to examine how well-prepared institutions were to serve the military population. The American Council on Education (2012) surveyed 690 higher educational institutions to evaluate the state of programs and services for veterans and service members on campuses across the nation. Persky and Oliver (2011) studied what components were necessary for a smooth transition. They found that (a) higher education institutions should focus on becoming veteran friendly by providing targeted programs and services to meet the needs of students, (b) colleges should advocate for military students to dispel bias, and (c) institutions should use other support-services models in developing veteran-specific support services. Other studies have explored services veteran-friendly institutions provide and the guidelines to become such an institution (Ackerman & DiRamio, 2009; Christensen & Evamy, 2011; Lang, Harriett, & Cadet, 2013; Lokken, McAuley, Pfeffer, & Strong, 2009).

Not all research has focused on institutions' preparedness to serve the military student. Other research has explored the military individual and obstacles impeding his or her transition from military service to college student. Areas observed highlight the military member needing to make considerable adjustments, including navigating social and personal interactions, and dealing with psychological and

physical challenges (Ackerman, DiRamio, & Mitchell, 2009). Some studies examined mental and physical disabilities, such as post-traumatic stress disorder (PTSD), which impede student veterans' success (Church, 2009; Grossman, 2009). Zinger and Cohen (2010) interviewed student veterans and documented the issues they face when transitioning, including an overwhelming sense of not fitting in, culture shock, the volume of paperwork that accompanies the G.I. Bill benefits, and emotional and physical issues.

In order to forge a bond between the student and the institution, initial student outreach is essential (Flint, 2001). This initial outreach should be followed by programs providing ongoing counseling and advising activities (Frey, 2011). Advising is multifaceted and includes not only academic advising but also support for career transition, life decision making, and the promotion of college success skills (Tattersall et al., 2005). The Council for Adult and Experiential Learning provides a comprehensive model for supporting the adult learner (MacKinnon-Slaney, 1994). The Adult Learner Focused Institutions (ALFI) also provides means for assessing the capability of the university to reach out to students and provide adult-learner support systems (Klein-Collins, 2011). It is also understood that some students' busy schedules may require schools to conduct advising at a distance. Therefore, universities have experimented with tools such as websites and degree-path advising software to provide guidance for remote students (Laghari, 2014; Polson, 2000). Such tools, including various means of implementing degree mapping, are said to improve retention of adult learners. And remote-access solutions are particularly useful for the online student (Shana & Abdullah, 2014; Ismail, 2011).

Although all of these the studies are significant, the primary focus has been on traditional campuses with full-time students. These studies often describe *what* to do but lack the explanation of *how* to do it in order to operationalize veteran-friendly concepts. This current study begins to bridge the gap by presenting the findings of a 2-year study on the influence of degree maps on student success. This study is important in that it will shed light on how the application of the degree map, a personal planning and communication tool for the advisor and student, can be added as a component of the university's support system to positively influence student persistence.

Methodology

This study is a mixed-methods research design focusing on collecting, analyzing, and mixing both quantitative and qualitative data (Creswell & Clark, 2007). By examining the quantitative data (which can be statistically analyzed) and the qualitative data (which uses the opinions, observations and feelings of people), a richer picture of the situation emerges (Creswell, 2012). The student population used in this study is unique, as the majority of these students are nontraditional, most are learning fully online, and over 50% are active-duty military or veterans. Seeking to answer the research question regarding whether degree maps have a positive influence on student veterans' success, this research was executed in a two phases.

Phase 1: Qualitative

To better understand the degree map's influence on the online student population, four open-ended questions were asked:

- Did the degree map help you get started with your first term?
- How has the degree map helped you with course and term selections?
- How will you utilize the degree map in the future?
- Do you have any additional comments or suggestions?

Data Collection

The academic advisor, who already has a professional relationship with students, sent an e-mail with the four open-ended questions and asked the students to respond within 5 days. The e-mail was sent

to a purposeful sample, which included 260 undergraduate and 440 graduate students who were using degree maps.

Data Analysis

The qualitative coding process is an iterative approach resulting in a series of themes and subthemes describing the impact of the degree maps (Creswell, 2012). The authors read all of the students' comments and took note of the emerging themes related to the following research question: Do degree maps have a positive influence on student veterans' success? Once all of the comments were read in this first pass of data analysis, the next step was to enter the data into the qualitative software.

The qualitative coding software used nVivo 9, aids in the organization and analysis of unstructured data (QSR International, 2014). Each student response was imported independently into the nVivo software, and the list of emergent themes loaded as categories, or nodes. The coding process involves reviewing each of the student's individual responses and linking the comments related to the themes and beginning a cataloging process.

After the coding was complete, the themes were collected and the frequency with which each theme appeared in the students' comments was noted. Relationships between themes were established, and all themes were classified into major groups. Finally, classifications and relationships and the rationale for each step of the analysis were supported by excerpts from sample student comment summaries.

Phase 2: Quantitative

The themes and subthemes from the students' comments received from the e-mail solicitation were analyzed to inform a survey instrument. The initial instrument was a 17-question survey. Three academic advisors validated the instrument for accuracy and verbiage. Additionally, 15 students reviewed the survey and submitted feedback. That process resulted in an instrument rewrite and an improved 13-question instrument. Of the 13 questions, three questions were demographic in nature, four questions established advising requirements, and six questions asked about degree maps. The instrument can be found in Appendix E.

Data Collection

The electronic survey (surveymonkey.com) was distributed to 1,046 students via e-mail with a note asking for participation and letting the students know the survey would be open for one week. A reminder e-mail was sent out midweek.

Data Analysis

The data were exported into SPSS software for analysis. Descriptive statistics characterizing the sample demographics were generated. Further, a Pearson Chi-Square test was conducted to test each hypothesis.

Results

Phase 1: Qualitative

The small, purposeful sample included 260 undergraduate and 440 graduate students to collect student opinions about the degree map. A total of 63 responses were received (a 9% response rate) from 30 undergraduates (an 11.5% response rate) and 33 graduate students (a 7.5% response rate). Of the 63 responses, 28 students (4% of the total) responded with enough articulated opinion to be coded qualitatively. Those 28 students' responses were coded using nVivo 9 qualitative coding software.

Emergent Themes

The main objective was to investigate students' perceptions of degree maps. The following interview excerpts illustrate the 13 themes and include the number of sources (individual participants) and the references (how many times that concept was coded in the 28 participants' comments).

Organize - helpful - easy (20 sources/24 references). "The suggested program mapping she presented was a huge factor for me starting my program this session. . . . So to answer your question, J. . . . provided me with a framework and comfort level I needed to begin this program—that seems to me that a skillset of understanding the coursework, plans . . . and the diversity of your student population is required. The Degree Map was simple to read and organized my program."

Personal experience (7 sources/8 references). "This gives me a feeling of not being alone and adds a lot of motivation for the studies."

Tuition or financial aid or reimburse (5 sources/5 references). "The degree map was great because I am being reimbursed for my education and was able to plan ahead with my employer to be reimbursed regularly."

Comfortable (5 sources/5 references). "I think there are nothing but pros to having a Degree Map. It gives you piece of mind knowing that there is a plan out there for you."

Stay on track (5 sources/5 references). "The degree map helps get you back on the right track and takes away some of the guesswork that full-time employees or service members don't have time for, or are only able to put a small amount of focus on what to take first due to other full-time obligations."

Busy lives (4 sources/4 references). "This map is a great tool and is very important to keep me on track as I am very busy with work, family, . . . etc."

Excited (4 sources/4 references). "This degree map is soooo simple why did none of my other schools have this???"

Great starting point (3 sources/3 references). "The degree map gave me a great starting place for the courses I needed to take when I first began classes"

Required courses (3 sources/3 references). "It is helpful to know what classes to sign up for and what prereqs are required."

Excellent advisor (3 sources/3 references). "She has guided me thru my degree plan with advise [*sic*] on courses that may be better for me with an easy to read degree map."

Adult learner getting back to school (2 sources/2 references). "As a new student who has been away from academia for over 14 years, I was very intimidated about starting my graduate degree. . . . The suggested program mapping she presented was a huge factor for me starting my program this session."

Want more than 1 year out of it (2 sources/2 references). "I actually would appreciate a similar listing for the whole rest of my degree."

Unsure where to start (2 sources/2 references). "Without it, I would have had no real idea where to start."

Phase 1: Conclusion The resulting 13 themes informed the survey instrument to collect qualitative data. Of the 13 questions, three questions were demographic in nature, four questions established advising requirements, and six questions asked about degree maps. The response data results can be found in Appendix F.

Phase 2: Quantitative This 13-question survey was sent to 1,046 students and 211 students replied, for an overall response rate of 20%. Of the 211 respondents, 89 (42%) were civilian students, 53 (25%) were actively serving military, and 69 (33%) were military veterans.

Table 1 *Demographics*

	%	*n*
Degree level		
Undergraduate	68.7%	145
Graduate	31.3%	66
Student status		
Civilian	42.2%	89
Military in active service	25.1%	53
Veteran	32.7%	69
Time since last enrolled in a civilian education program		
Less than 1 year	18.0%	38
1–3 years	16.1%	34
3–5 years	18.5%	39
5–10 years	19.0%	40
10+ years	28.4%	60

Hypothesis Q1. Student comments in the qualitative analysis portion of the study suggest that students returning to school after an extended period of being out of school need additional assistance. Hypothesis Q1 tests the assumption that most students need such assistance.

Q1: I needed assistance in order to determine which course I should take first in my program.

H_0: There is no association between student status and responses to the degree map survey instrument Question 1.

H_a: There is an association between degree level and responses to the degree map survey instrument Question 1.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 12.14, 8 *df*, *p* = .145). The null hypothesis is accepted.

Hypothesis Q2. The qualitative analysis provided some indication that students need additional support in determining how to progress from one course to another. Hypothesis Q2 evaluates requirement in the data derived from the quantitative survey.

Q2: After I complete a course in my program, I need assistance in order to determine which course I should take next.

H_0: There is no association between student status and responses to the degree map survey instrument Question 2.

H_a: There is an association between student status and responses to the degree map survey instrument Question 2.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 11.86, 8 *df*, *p* = .157). The null hypothesis is accepted.

Hypothesis Q3. Student comments in the qualitative analysis portion of the study suggest that students returning to school after an extended period of being out of school need additional assistance. Hypothesis Q3 seeks to confirm that most students need such assistance.

Q3: Having a clear course sequence in a degree program makes returning to school easier.

H_0: There is no association between student status and responses to the degree map survey instrument Question 3.

H$_a$: There is an association between student status and responses to the degree map survey instrument Question 3.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 612, 8 *df*, *p* = .612). The null hypothesis is accepted.

Hypothesis Q4. Student comments in the qualitative analysis portion of the study suggest that students returning to school after an extended period of being out of school face stress and anxiety. Hypothesis Q4 seeks to confirm that the degree map aids in reducing such stress.

Q4: A degree map removes some of the stress involved with going back to school.

H$_0$: There is no association between student status and responses to the degree map survey instrument Question 4.

H$_a$: There is an association between student status and responses to the degree map survey instrument Question 4.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 5.51, 8 *df*, *p* = .702). The null hypothesis is accepted.

Hypothesis Q5. The qualitative analysis provided some indication that students need additional support in determining how to progress from one course to another. Hypothesis Q5 seeks to further confirm this indication in the data derived from the quantitative survey.

Q5: My degree map helps me to stay on track in my program.

H$_0$: There is no association between student status and responses to the degree map survey instrument Question 5.

H$_a$: There is an association between student status and responses to the degree map survey instrument Question 5.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 10.962, 8 *df*, *p* = .204). The null hypothesis is accepted.

Hypothesis Q6. The qualitative analysis indicates that students feel that degree maps help them stay organized and track. Hypothesis Q6 seeks to confirm this in indication within a larger sample.

Q6: My degree map helps keep me organized.

H$_0$: There is no association between student status and responses to the degree map survey instrument Question 6.

H$_a$: There is an association between student status and responses to the degree map survey instrument Question 6.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 7.89, 8 *df*, *p* = .445). The null hypothesis is accepted.

Hypothesis Q7. The qualitative analysis provided some indication that students need additional support in determining how to progress from one course to another. Hypothesis Q7 evaluates responses in the data derived from the quantitative survey related to this recurring theme.

Q7: My busy life makes it difficult for me to think about the sequence of courses in my degree.

H$_0$: There is no association between student status and responses to the degree map survey instrument Question 7.

H$_a$: There is an association between student status and responses to the degree map survey instrument Question 7.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 11.796, 8 *df*, *p* = .161). The null hypothesis is accepted.

Hypothesis Q8. Although commitment is a topic that did not directly emerge in the qualitative analysis, Hypothesis Q8 seeks to understand the potential impact of the degree map on student retention.

Q8: My degree map reinforces my commitment to complete my degree.

H_0: There is no association between student status and responses to the degree map survey instrument Question 8.

H_a: There is an association between student status and responses to the degree map survey instrument Question 8.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 8.85, 8 *df*, *p* = .354). The null hypothesis is accepted.

Hypothesis Q9. Although perceiving a connection with the university is a topic that did not directly emerge in the qualitative analysis, Hypothesis Q9 seeks to understand the potential impact of the degree map on student retention.

Q9: Having a degree map helps me to feel more connected to my university.

H_0: There is no association between student status and responses to the degree map survey instrument Question 9.

H_a: There is an association between student status and responses to the degree map survey instrument Question 9.

The chi-square results indicate that survey responses to this question did not vary according to student status (χ^2 5.752, 8 *df*, *p* = .675). The null hypothesis is accepted.

Hypothesis Q10. The qualitative analysis provided some indication that students who participate in tuition reimbursement programs find the degree map useful. Hypothesis Q10 evaluates responses in the data derived from the quantitative survey related to this recurring theme.

Q10: A degree map simplifies my tuition reimbursement program.

H_0: There is no association between student status and responses to the degree map survey instrument Question 10.

H_a: There is an association between student status and responses to the degree map survey instrument Question 10.

The chi-square result indicates that survey responses to this question varied based upon student status. Civilian students responded to this question more positively than military or veteran students (χ^2 19.71, 8 *df*, *p* = .011). The null hypothesis is rejected.

Table 2 (next page) represents the survey question and the results of the chi-square test for association. All of the null hypotheses were accepted except for the questions about tuition reimbursement.

Discussion

The findings of the mixed-method study suggest that veteran students have positive perceptions of degree mapping support provided by the university advising staff overall. That being said, the positive responses are equally observed regardless of student status (civilian, active military, or veteran). These results suggest that all student populations can benefit from the degree map as part of each student's

individual learning plan. These findings suggest other universities may benefit from learning how to implement degree maps.

Table 2 *Pearson Chi-Square Test Results Summary*

Q#	Survey questions	C/M/V	χ^2	Null
Q1	I needed assistance in order to determine which course I should take first in my program.	$p = .145$	12.14, 8 *df*	Accept
Q2	After I complete a course in my program, I need assistance in order to determine which course I should take next.	$p = .157$	11.86, 8 *df*	Accept
Q3	Having a clear course sequence in a degree program makes returning to school easier.	$p = .612$	6.32, 8 *df*	Accept
Q4	A degree map removes some of the stress involved with going back to school.	$p = .702$	5.51, 8 *df*	Accept
Q5	My degree map helps me to stay on track in my program.	$p = .204$	10.962, 8 *df*	Accept
Q6	My degree map helps keep me organized.	$p = .445$	7.89, 8 *df*	Accept
Q7	My busy life makes it difficult for me to think about the sequence of courses in my degree.	$p = .161$	11.796, 8 *df*	Accept
Q8	My degree map reinforces my commitment to complete my degree.	$p = .354$	8.85, 8 *df*	Accept
Q9	Having a degree map helps me to feel more connected to my university.	$p = .675$	5.752, 8 *df*	Accept
Q10	A degree map simplifies my tuition reimbursement program.	$p = .011$	19.71, 8 *df*	***Reject***

Implementation of degree maps at Embry-Riddle Aeronautical University began in September 2012. When conceptualizing degree maps, the final product needs to be personalized, succinct, and simple for the online student population. The student population used in this study is unique, as the majority of these students are nontraditional, most are learning fully online and over 40% are active military. With this student population and simplicity in mind, the degree map was created as a 1–2 page document, sequencing all degree requirements into specific terms with an expected graduation date clearly identified.

Academic advisors met with virtually all newly admitted undergraduate and graduate students to explain the newly developed degree map and to gain information needed for its creation. When creating a degree map, the academic advisor must know when students plan to start their degree, their current work schedule, how many courses they plan to take per term, whether there are any prerequisite knowledge deficiencies, and their expected graduation date. In this case, degree maps were created for 804 undergraduate and 242 graduate students. These degree maps were all imaged to ensure tracking of their success.

Feedback and evidence of possible influence were apparent in the first few weeks after implementation. Much of the initial feedback revolved around the simplicity of the degree map and how students felt it clarified the majority of their degree questions. Additionally, a noticeably larger number of students web registered for the following term, a task typically handled by the academic advisor. Promoting and encouraging the use of self-service through degree maps allowed more time for higher level, personalized advising.

Throughout the following year, degree maps consistently received positive feedback, and there were noticeable increases in this population's student life cycle. In particular, there were noticeable increases in new student matriculations, the active student population, and the number of courses taken per year by both military and civilian students. Academic advising became prescriptive; students were following their degree maps and focusing on their overarching goal— graduation.

An area for further research includes evaluating how the degree map could provide necessary documentation during accreditation or reaffirmation audits. ERAU's degree maps have been viewed as auspicious by the Department of Defense: "Accolade: ERAU's degree maps allow students to know not only which courses need to be taken, but also the sequence, dates, and locations of each those courses" (Department of Defense, 2014, p. 31). Additionally, the Project Management Institute Global Accreditation Team, a professional accrediting body, recognized the degree map as a strength: "Online students receive a course plan so that they know which course to register for when as well as how long it will take them to complete the program" (Project Management Institute Global Accreditation Center, 2013, p. 21).

A second opportunity for further research could be to measure degree map's effectiveness in meeting the requirements for institutional transparency established by the Improving Transparency of Education Opportunities for Veterans Act of 2012. This legislation became effective in January 2013 and requires universities to obtain feedback from student veterans and state approving agencies to monitor educational practices (U.S. Department of Veterans Affairs, 2013). Studying the effects the degree map as a communication tool between university advising and military students might provide a solution to new legislative requirements.

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Appendix A: First-Year Degree Map Example
December 30, 2014
Student ID#:
Student Name:
Degree: Associate in Science in Aeronautics
Congratulations on your acceptance to Embry-Riddle Aeronautical University – Worldwide! As a student admitted to ERAU – Worldwide your success is our priority. This unofficial degree map will assist you in course selection during the first year of your academic career. This degree map is for advisement purposes, and all official requirements are listed on your official Academic Requirement report. If you have any questions or need an updated degree map please contact your Academic Advisor or Campus representative.
I look forward to working with you! Please contact me with any questions or if you would like to discuss additional course options.
Best wishes,
///name////
Team Leader, Undergraduate Advising
Department of Online Learning, Worldwide
Embry-Riddle Aeronautical University
T: +1-386-226-xxxx F: +1-386-226-xxxx

Campus Recommended Courses	Term
ASCI 202 Introduction to Aeronautical Science	August 2014
*ENGL 123 English Composition	October 2014
*MATH 111 College Mathematics for Aviation I	October 2014
MATH 112 College Mathematics for Aviation II	January 2015
ENGL/SPCH Elective (suggestion: ENGL 222 Business Communication or ENGL 221 Technical Report Writing)	January 2015
MATH 211 Statistics with Aviation Applications	March 2015
CSCI 109 Introduction to Computers and Applications	March 2015
RSCH 202 Research Methods	May 2015
HUMN 210 World Culture	May 2015

Placement exam score of 70% or higher required. Otherwise, further prerequisite courses may be needed.

Appendix B: Bachelor of Science in Aeronautics Degree Map Example
January 20, 2015
Student ID#:
Student Name:
Degree: Bachelor of Science in Aeronautics
Congratulations on your acceptance to Embry-Riddle Aeronautical University – Worldwide! As a student admitted to ERAU – Worldwide your success is our priority. This unofficial degree map will assist you in course selection during your academic career. This degree map is for advisement purposes and all

official requirements are listed on your official Academic Requirement report. If you have any questions or need an updated degree map please contact your Academic Advisor or Campus representative.

Map created for remaining requirements after FAA CPL or other possible AAOC/ license credit applied. Additional AAOC or open electives may be required depending on license obtained.

*Pending completion of English and Math placement exams with score of 70% or higher. If score is below 70% a remedial course may be needed to satisfy prerequisite requirements.

I look forward to working with you! Please contact me with any questions or if you would like to discuss additional course options.

Best wishes,

///name///

Undergraduate Academic Advisor

Embry-Riddle Aeronautical University - Worldwide Online Campus

600 S. Clyde Morris Blvd. Daytona Beach, FL 32114-3900

T: +1-386-323-xxxx F: +1-386-226-xxxx

E-mail: Web: www.worldwide.erau.edu

Campus Recommended Courses	Term
ENGL 123 English Composition*	May 2013
ASCI 202 Intro to Aero Science	May 2013
MATH 111 College Math for Aviation I*	August 2013
ENGL 221 Technical Report Writing	August 2013
MATH 112 College Math for Aviation II	October 2013
HUMN 330 Values & Ethics	October 2013
CSCI 109 Intro to Computers & Applications	January 2014
ENGL 222 Business Communication	January 2014
PHYS 102 Explorations in Physics	March 2014
HUMN 142 Studies in Literature	March 2014
ECON 211 Macroeconomics	May 2014
ASCI 254 Aviation Legislation	May 2014
MATH 211 Statistics w/Aviation Applications or MATH 222 Business Statistics	August 2014
PSYC 220 Intro to Psychology	August 2014
ASCI 404 Applications in Aviation/Aerospace Law	October 2014
MGMT 210 Principles of Mgmt	October 2014
MGMT 210 Financial Accounting	January 2015
RSCH 202 Intro to Research Methods	January 2015
MGMT 221 Intro to Mgmt Info Systems	March 2015
SFTY 409 Aviation Safety	March 2015
ASCI 309 Aerodynamics	May 2015
Professional Development Elective	May 2015
MGMT 436 Strategic Mgmt	August 2015
Professional Development Elective	August 2015
Professional Development Elective	October 2015
Professional Development Elective	October 2015

Professional Development Elective	January 2016
Professional Development Elective	January 2016
Professional Development Elective	January 2016
ASCI 490 Aeronautical Capstone	March 2016

Appendix C: Master of Science in Project Management Degree Map Example, One Class per Term
Unofficial Degree Map
January 20, 2015
Student ID#:
Student Name:
Degree: Master of Science in Project Management
As a student admitted to ERAU – Worldwide your success is our priority! This degree map will assist you in course selection throughout your graduate academic career. The map is intended for advisement purposes, is tentative, and is subject to change. All official requirements are listed on your official degree evaluation. If you have any questions, please contact your Academic Advisor.
Prerequisites: Students should assume responsibility to see that prerequisites are satisfied. However, students who still lack prerequisite knowledge in one of the following area may be required to register for one or all of the modules contained in MGMT 503 A-F: management, quantitative methods, marketing, accounting, economics and/or finance.

Campus Recommended Courses	Term
MGMT 532 Philosophy, Principles, and Practices in Management of Quality	August 2014
MGMT 533 Federal Regulations, Ethics and the Legal System	October 2014
MGMT 524 Management Science *Prerequisite Required	January 2015
PMGT 501 Fundamentals of Project Management *Prerequisite Required	March 2015
PMGT 502 Effective Communications for Managing Projects *Prerequisite Required	May 2015
PMGT 611 Anatomy of Project Organizations *Prerequisite Required	August 2015
PMGT 612 Leading Projects Across Cultural, Corp, & International Boundaries *Prerequisite Required	October 2015
PMGT 613 Assessing and Managing Project Risk *Prerequisite Required	January 2016
PMGT 614 Planning, Directing and Controlling Projects *Prerequisite Required	March 2016
PMGT 690 Project Management Capstone *Prerequisite Required	May 2016
MBAA 517 Managerial Accounting for Decision Making *Prerequisite Required	August 2016
MGMT 672 Planning and Execution of Strategy *Prerequisite Required	October 2016

Appendix D: Fast Track Master of Aeronautical Science Degree Map Example, 2 Classes per Term
Unofficial Degree Map
January 20, 2015
Student ID#:
Student Name:
Degree: Master of Aeronautical Science
Specialization: Aviation/Aerospace Operations Specialization

As a student admitted to ERAU – Worldwide your success is our priority! This degree map will assist you in course selection throughout your graduate academic career. The map is intended for advisement purposes, is tentative and is subject to change. All official requirements are listed on your official degree evaluation. If you have any questions, please contact your Academic Advisor.

Campus Recommended Courses	Term
ASCI 609 Aircraft Maintenance Management	August 2014
ASCI 645 Airport Operations and Management	August 2014
ASCI 602 The Air Transportation System	October 2014
RSCH 665 Statistical Analysis	October 2014
ASCI 604 Human Factors in the Aviation/Aerospace Industry	January 2015
RSCH 670 Research Methods	January 2015
ASCI 606 Air Traffic Control and the National Airspace System *Suggested A/A Operations specialization course	March 2015
ASCI 617 Airport Safety and Certification *Suggested A/A Operations specialization course	March 2015
ASCI 620 Air Carrier Operations *Suggested A/A Operations specialization course	May 2015
ASCI 500/600 ELECTIVE	May 2015
ASCI 622 Corporate Aviation Operations *Suggested A/A Operations specialization course	August 2015
ASCI 691 Graduate Capstone Course	October 2015

Appendix E: Survey Instrument Questions
Q1 Please identify your degree level.
Undergraduate   Graduate

Q2 Please identify your status:
Civilian, military (currently serving), and veteran students

Q3 Prior to enrolling in ERAU, how long has it been since your last enrollment in a civilian formal education program (high school or college/university)?
Less than 1 year   1-3 years   3-5 years   5-10 years   More than 10 years

Q4 I needed assistance in order to determine which course I should take first in my program.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q5 After I complete a course in my program, I need assistance in order to determine which course I should take next.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q6 Having a clear course sequence in a degree program makes returning to school easier.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q7 A degree map removes some of the stress involved with going back to school.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q8 My degree map helps me to stay on track in my program.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q9 My degree map helps keep me organized.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q10 My busy life makes it difficult for me to think about the sequence of courses in my degree.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q11 My degree map reinforces my commitment to complete my degree.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q12 Having a degree map helps me to feel more connected to my university.
 Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Q13 A degree map simplifies my tuition reimbursement program.
Strongly Agree   Agree   Neither Agree or Disagree   Disagree   Strongly Disagree

Appendix F: Survey Response Breakdown Table
Table A1 *Survey response breakdown*

	n			%
Q1: I needed assistance in order to determine which course I should take first in my program.				
Response options	Civilian	Military	Veteran	
Strongly Agree	48	23	33	49.5%
Agree	21	20	23	30.5%
Neither Agree or Disagree	9	7	6	10.5%
Disagree	1	1	4	2.9%
Strongly Disagree	10	1	3	6.7%
Q2: I need assistance in order to determine which course I should take next.				
Response options	Civilian	Military	Veteran	
Strongly Agree	32	14	12	27.5%
Agree	29	21	31	38.4%
Neither Agree or Disagree	15	6	11	15.2%
Disagree	5	9	8	10.4%
Strongly Disagree	8	3	7	8.5%
Q3: Having a clear course sequence in a degree program makes returning to school easier.				
Response options	Civilian	Military	Veteran	
Strongly Agree	57	32	37	60.3%
Agree	23	17	18	27.8%
Neither Agree or Disagree	6	3	10	9.1%
Disagree	1	1	2	1.9%
Strongly Disagree	1	0	1	1.0%
Q4: A degree map removes some of the stress involved with going back to school.				
Response options	Civilian	Military	Veteran	
Strongly Agree	45	28	35	51.2%
Agree	30	19	21	33.2%
Neither Agree or Disagree	7	6	8	10.0%
Disagree	4	0	2	2.8%
Strongly Disagree	3	0	3	2.8%
Q5: My degree map helps me to stay on track in my program.				
Response options	Civilian	Military	Veteran	
Strongly Agree	48	34	35	55.7%
Agree	27	18	21	31.4%
Neither Agree or Disagree	5	1	7	6.2%
Disagree	6	0	2	3.8%
Strongly Disagree	3	0	3	2.9%

Q6: My degree map helps keep me organized.

Response options	CivilianMilitary		Veteran	
Strongly Agree	43	33	32	51.2%
Agree	31	18	25	35.1%
Neither Agree or Disagree	8	2	7	8.1%
Disagree	4	0	2	2.8%
Strongly Disagree	3	0	3	2.8%

Q7: My busy life makes it difficult for me to think about the sequence of courses in my degree.

Response options	CivilianMilitary		Veteran	
Strongly Agree	24	16	17	27.0%
Agree	34	17	25	36.0%
Neither Agree or Disagree	14	7	14	16.6%
Disagree	9	13	10	15.2%
Strongly Disagree	8	0	3	5.2%

Q8: My degree map reinforces my commitment to complete my degree.

Response options	CivilianMilitary		Veteran	
Strongly Agree	33	27	27	41.2%
Agree	34	20	25	37.4%
Neither Agree or Disagree	15	3	11	13.7%
Disagree	2	3	3	3.8 %
Strongly Disagree	5	0	3	3.8%

Q9: Having a degree map helps me to feel more connected to my university.

Response options	CivilianMilitary		Veteran	
Strongly Agree	25	18	22	31.3%
Agree	28	18	18	30.8%
Neither Agree or Disagree	24	12	21	27.4%
Disagree	7	5	3	7.2%
Strongly Disagree	3	0	4	3.4%

Q10: A degree map simplifies my tuition reimbursement program.

Response options	CivilianMilitary		Veteran	
Strongly Agree	11	18	16	21.3%
Agree	16	12	8	17.1%
Neither Agree or Disagree	49	18	38	49.8%
Disagree	9	5	2	7.6%
Strongly Disagree	4	0	5	4.3%