Our mission is to teach the science, practice and business of aviation and aerospace, preparing students for productive careers and leadership roles in service around the world.

Our technologically enriched, student-centered environment emphasizes learning through collaboration and teamwork, concern for ethical and responsible behavior, cultivation of analytical and management abilities, and a focus on the development of the professional skills needed for participation in a global community. We believe a vibrant future for aviation and aerospace rests in the success of our students. Toward this end, Embry-Riddle is committed to providing a climate that facilitates the highest standards of academic achievement and knowledge discovery, in an interpersonal environment that supports the unique needs of each individual. Embry-Riddle Aeronautical University is the world’s leader in aviation and aerospace education. The University is an independent, non-profit, culturally diverse institution providing quality education and research in aviation, aerospace, engineering and related fields leading to associate, bachelor’s, master’s, and doctoral degrees.
Our mission statement is how we focus ourselves and tell the outside world who we are and what we do. I want to call your attention to a few of the key statements:

**Embry-Riddle is committed to providing a climate that facilitates the highest standards of academic achievement and knowledge discovery...Embry-Riddle Aeronautical University is the world’s leader in aviation and aerospace education... providing quality education and research in aviation, aerospace, engineering and related fields.**

Does this mission statement describe our College or are we still in pursuit of this statement? I think it is a little of both. In some of our core competencies, I believe we represent this statement well; in others, I think we have work to do.

To take the COA to the next level and allow it and each of you who are part of this team to meet their potential, I believe we **must** change the way we think about the things we do every day within our College. We must consider this bold mission statement before each lesson we teach, each curriculum change we propose, each new program we consider, and certainly before each decision made by members holding leadership positions within our College.

I like the way Aristotle put it:

**Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit.**

Maybe you’d prefer a more modern view on this topic of acting like who you want to be:

“**If you are going to achieve excellence in big things, you develop the habit in little matters. Excellence is not an exception, it is a prevailing attitude.”** Colin Powell

I would like to challenge each member of our College, no matter your role, to contemplate the relevance of this mission statement in all you do.

If your actions do not reflect this mission statement; why not?

How good could your lesson be if you approached it as the world’s leader in aviation and aerospace education?

Where would our current students be in five years if each faculty member within our College was committed to providing a climate that facilitates the highest standards of academic achievement and knowledge discovery?

**Our students and your colleagues within the COA deserve nothing less from each of us.**
I was sitting here in my home office the other day thinking about something that happened concerning an instructor and the way they were conducting their courses. This particular instructor was constantly behind on their grading and didn’t provide very good feedback to students when they handed in assignments. This one instructor was not doing a very good job of providing a quality learning environment to the students, and when he was presented with constructive feedback that could be used to correct the situation, he seemed very insulted. In short, he was not doing a very good job and for some reason, either didn’t realize he wasn’t doing a very good job or didn’t care that he wasn’t doing a very good job. This was troubling to me on a number of levels.

We are constantly hearing terms like quality. We need quality faculty; we need quality courses; we need quality curriculum; but when it comes right down to it, what does that mean? It seems that not everyone has the same definition of quality or even when the term quality should be applied. Are we referring to quality in terms of teaching? Or do we mean quality in terms of the data we collect to measure quality? What does quality mean to faculty and what does quality mean to a student? And how does a faculty member’s interpretation of quality translate down to the students who are taking our courses and paying our salaries? We can develop fantastic courses but the pivotal piece is how the faculty deliver the course in the classroom.

To me, the answer is simple. Quality means paying attention to detail and taking care of the little jobs that need to be performed in order to create a quality learning environment for students.

A famous quote from American poet Emily Dickenson states, “If you take care of the small things, the big things take care of themselves.” Whether you agree with Emily Dickenson or not, there is truth in that quote. Of course, she wasn’t talking about taking care of job related duties and tasking; she was talking about personal things, but the same concept holds true no matter what situation we find ourselves in.

A friend of mine I used to work with at the Navy was like this too. He was very meticulous in every detail of his personal and professional life. One of his pastimes that he truly enjoyed was flying helicopters. One day, he asked if I wanted to go along on a flight and I enthusiastically accepted his offer. When I met him at the local airport, I noticed that he displayed the same level of concern and discipline in his preflight check and procedures that I had always seen him exhibit at work. We approached the aircraft and he meticulously performed his preflight procedures explaining everything along the way. What was he doing? He was taking care of the small things so he wouldn’t have to deal with big things later on. He wanted to make sure he had taken care of every detail possible to try to make sure we wouldn’t have an unfortunate incident or accident during flight.

As faculty members, we need to do the same thing. We need to take care of the small things so we don’t have to worry about the big things. Taking care of the small things as a faculty member doesn’t necessarily mean taking care of quality; quality is a big thing. As a faculty member, we should be taking care of the small things and then quality will take care of itself. Things like showing up for class on time every time, making sure we are prepared for class, providing relevant and up to date subject matter and information, providing good feedback to every student every time on every assignment, and making sure grades get posted quickly so that students know where they stand in the course. It doesn’t mean we have to do a perfect job, or hold the student’s hand every step of the way; it just means doing the best job we can for the student every single day. If we can do that, then we shouldn’t have to worry about delivering a quality course because that will take care of itself. Students appreciate when an instructor posts grades in a timely manner and they appreciate when they receive a grade with feedback that explains the justification behind the grade and what the student can do in the future to improve. Take care of the small things, and the big things, like quality, will take care of themselves.

I am a firm believer in this philosophy. Whether we are talking about a spouse, hobby, or job, the concept is the same; take care of the small things and the big things will take care of themselves.
The new academic year has just started and reflecting on all the successes from last year, we can summarize our first full year as a success by all and from a lot of hard work by all. We have a foundation to build upon to catapult our departments and college forward.

What do we mean by success and how do we measure our college in the global context? Last week I presented a paper at the University of Oxford, St Anne’s College, where one is always cognisant of the history and gravitas of their achievements. Having given a Keynote speech, I was approached by a Senior Lecturer from Oxford University to ask for my advice and help. She was wondering how to solve a particular problem on her research, and asked for suggestions and ideas on using UAVs to improve the data collection. Subsequently, I have put her in contact with Brent Terwilliger to assist her. Currently, he is offering advice and direction to a multi-million dollar research project. She has invited me back in the Fall to give a talk on the research being down by our college in Aviation before several hundred undergraduates, an honor for me and our college. These are just two examples of success we could all mention. It shows we are real contenders in the global academic and research world.

As we move forward and look towards Worldwide in Orlando, I would like to take this opportunity to ask you all: “...how can we pool all of our skills to make a bigger impact within Worldwide and the global arena?”

Research is key, but what about our commitment to quality?
How do we make sure every student that graduates tells of their wonderful experiences and satisfaction?

Pride in our work is important, but if it’s not supporting the students is that pride misguided?

We have the tools to map our future.
Let’s use this year to make it happen.
The BSAvM degree has long been a mainstay in the programs offered by the WW Campus. The BSAvM is focused on one of the most critical segments of the aviation industry. At the simplest level aviation maintenance is the understanding of nuts and bolts. But at the highest level aviation maintenance is the expertise to diagnose stresses and associated failures of nuts and bolts as well as many other structures, systems and components. Without a doubt, in aviation the most crucial task is to keep the aircraft flying safely. People with aircraft maintenance skills and knowledge continue to be in high demand by aviation and aeronautical employers. Graduates of the BSAvM program leave the program with a tangible understanding of aircraft systems and components as well as critical thinking skills to correct malfunctions. With some recent changes to the program, our students also gain an understanding of the aviation maintenance segment of the industry from the global perspective. Paired with relevant management and safety courses, the BSAvM degree is and will continue to be a key factor in the success of dedicated aviation maintenance professionals.

Today, the BSAvM degree is one of the fastest growing degree programs in the WW Campus. The degree is offered in all teaching modalities on campuses throughout the world and has achieved significant success at our Singapore Campus. To date enrollments are up this year 38% above enrollments for August 2013. For the Academic Year (AY) 2013-14 program enrollments topped out at 1347 for the year, a 17% increase from the 2012-13 AY. As a testament to program growth, enrollments have more than doubled since 2010! We are also off to an exciting start for this AY with 684 enrollments 2 months into the AY!

Never has it been more important than today to properly prepare aviation maintenance professionals to enter or move up in the aviation workplace. Just to put it in perspective, the global Maintenance, Repair & Overhaul (MRO) industry today employs 466,000 people worldwide. The commercial aircraft MRO industry is poised to generate $57.5B in 2014 and forecasted to increase to $87.8B by 2024. In the U.S. alone over 115,000 people work in different segments of the MRO industry. The success of any industry is rooted in the employees and the aviation maintenance professional career field is facing epic shortages of up to 600,000 workers by 2031 according to industry experts. Additionally, industry authorities indicate many aviation maintenance professionals are not entering the workplace with the needed technical and critical thinking skillsets of their predecessors. We understand these issues because we listen and partner with industry to understand the challenges. We not only listen, we act. In the BSAvM program we are redeveloping many of our courses to ensure we stay abreast of the changes to address the needs of the aviation maintenance segment of the industry, today and tomorrow.

If you would like to take part in helping us with continuing to improve the BSAvM degree, let us know! We can always use more assistance and believe we have many faculty members with expertise to offer to the BSAvM program. Join us in preparing the aviation maintenance professional to keep the aircraft “turning and burning” now and into the future!
Engineering Technology – What it is and is not!

by Dr. Adeel Khalid, Program Chair, BS Engineering Technology

There have been some questions about what ‘Engineering Technology’ is and how it is different from ‘Engineering’ – especially in the context of the recently approved Bachelor of Science in Engineering Technology (BSET) program. Most of the people are familiar with engineering -that comes in various flavors e.g. Aerospace Engineering, Mechanical Engineering, Electrical Engineering, Civil Engineering etc. Engineering technology programs come in similar flavors that are often referred to as Mechanical Engineering Technology, Electrical Engineering Technology, Civil Engineering Technology etc. The two programs are similar with subtle differences. They are comparable but separate professional areas. The differences can be looked at from four different perspectives:

1. **Difference between the classes and curriculum**
   Engineering programs focus on the theory and conceptual design, whereas the engineering technology programs usually focus on application and implementation. Engineering programs typically require additional, higher level mathematics, including multiple courses on calculus and calculus-based theoretical science. Engineering Technology programs typically focus on algebra, trigonometry, applied calculus, and other courses that are more practical than theoretical in nature.

2. **Employment opportunities and types of work**
   Graduates from engineering programs are called engineers. They often pursue entry-level work involving conceptual design or research and development. Graduates of four-year engineering technology programs are called technologists. These professionals are most likely to enter positions in sectors such as construction, manufacturing, product design, testing, or technical services and sales. Engineering technology graduates who pursue further study often consider facilities management or business administration.

3. **Registration as Professional Engineer (PE)**
   Registration as a Professional Engineer (PE) is preferred for engineers making final decisions that can have an impact on the health and welfare of the general public. Both engineering and engineering technology graduates can get their PE licensure. The process and requirements differ depending on the state.

4. **What type of individual is best suited for each type of program**
   In general, those most suited for the engineering technology program are the “hands-on” type of individuals. This may be the student who took small engines, or machine shop in high school, or the person who likes tinkering on their lawnmower or dirt bike on the weekends. The very academic student, the one who took AP calculus in high school, and who would rather mess around on their computer than build something with their hands, may find an appropriate fit in an engineering degree program.

There is much overlap between engineering and engineering technology. At ERAU WW, the BSET program is generic in nature and it could be delivered 100% online, and it could be delivered via other modalities as well – which makes it unique. This program will provide our students an opportunity to work in a variety of industries upon graduation including Aerospace, Mechanical, Electrical, Computers, Systems etc. It will also open doors to them for graduate schools.
A Message from the Faculty Senate to the College of Aeronautics Adjunct Faculty

I hope that everyone has had an enjoyable summer and welcome to another academic year! To all the new COA Adjunct Faculty, I would like to extend a special welcome to the ranks. Now on to Senate activities....

On August 20th, the ERAU-Worldwide Faculty Senate met for about 3 hours to discuss a wide variety of agenda items. Some of the more prominent topics centered on the new pay tables, increasing class enrollment limits for certain courses, the proposed PhD-Technology degree, and more. We also heard from Dr. Watret, Chancellor; and Dr. Sims, Chief Academic Officer; regarding the course cancellation stipend. After their discussions with the Senators and a few adjunct faculty present, I did ask questions on your behalf. A possible motion is pending on the matter; however, I will be speaking directly to the Senate on this matter at the October meeting. I will have more to say on this then.

Finally, I ask that you continue sending emails or calling me if you have concerns needing voice in the Senate. If you have an administrative matter that needs to be addressed (e.g., pay, scheduling, contracts, etc.), please contact the College of Aeronautics at wwaero@erau.edu for assistance. As always, thank you for your continued support.

Jeff Jennings
Adjunct Assistant Professor & Faculty Senate Representative
ERAU-College of Aeronautics
405-246-5670 or mailto:jenni871@erau.edu

Faculty Tips!

Canvas will roll out this year as the new learning management system to replace Blackboard. If you are wondering what it looks like, or how it operates, here is a way to take a look at the program.

Up and Running with Canvas on Lynda.com (it requires access through ERNIE):
http://www.lynda.com/Canvas-tutorials/Up-Running-Canvas/141462-2.html?srchtrk=index:1%0Alinktypeid:2%0Aq:Canvas%0Apage:1%0As:relevance%0Asa:true%0Aproducttypeid:2

Also available on VIMEO - Instructure Canvas Video Tutorials LMS
http://vimeo.com/channels/canvaslms
Calendar Events

Small Unmanned Aerial Systems (sUAS) Challenge  
Reno, Nevada  
Sept. 12-14

Seattle Graduation—Museum of Flight  
Sept. 13th

Worldwide Conference Orlando  
Sept. 23rd - Sept. 26th

Dallas Graduation—Frontiers of Flight Museum  
Oct. 4th

Wings & Waves Air Show, Daytona Beach, FL  
Oct. 11th - Oct. 12th

Senate Meeting, Daytona Beach, FL  
Oct. 14th - Oct. 16th

Industry Advisory Meeting  
Oct. 15th - Oct. 16th

NBAA Conference  
Oct. 21st - Oct. 23rd

Real World Design Challenge Nat’l Event, Wash D.C.  
Nov. 14th - Nov. 16th

Congratulations to

♦ Dr. Kimberly Szathmary who successfully defended her dissertation.

♦ Dr. Dave Hernandez  winning the 2014 ERAU Worldwide Research Award Competition  
"A novel skirtless hovercraft system design"
Congratulations 2014 ERAU Graduates!

Send us your photos, stories, events, so we can feature your successes in the next COA newsletter. We welcome any comments, corrections or suggestions.

Please send them to stenbers@erau.edu