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A Survival Guide to the Aviation Flight Science Degree at Western Michigan University

Honors Thesis

Western Michigan University

Kalamazoo, MI

Aidan Michael Schmidt

Summer 2024

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Background

Hello! My name is Aidan. I appreciate you for taking the time out of your day to read this, whether as part of my thesis committee, a newly accepted student in the aviation flight science program, or even an experienced junior or senior in the program simply looking for some guidance. I hope you find this read helpful, informative, and engaging.

The idea for this thesis emerged after wrestling with several potential topics, none of which piqued my interest. I then thought, hmm, I am an experienced senior in the aviation flight science program who has made a fair share of good and bad decisions throughout my collegiate career and has some valuable insights worth sharing. Why not make a survival guide to the aviation flight science degree, hoping to provide some wisdom for any student just admitted into the program or even an upperclassman looking for some guidance. Thus, this idea was born.

Well, I am sure you are dying to hear a bit about my backstory. I am a born and raised suburban kid from Chicagoland, located about 20 miles northwest of the city and only 10 minutes away from Chicago O'Hare International Airport (this will become more apparent in just a few more sentences). I grew up a fairly adventurous, curious, and energetic kid, always poking my nose into things I shouldn't have. This sort of laid the ground work as to why my parents knew I would never work a desk job... As I grew up, to my dismay, I was forced to explore potential career paths. I thought being a meteorologist would be cool. I thoroughly enjoying learning about weather as a kid. Then the idea of becoming a storm chaser came about; I'm sure you can imagine how that conversation went with my family. Then came the idea of a lawyer—because I liked to argue—but there is too much paper work involved with that. After this, I recalled my fascination with airplanes. Living so close to O'Hare, we would have planes fly over

our house seemingly hundreds of times a day. My whole childhood I remember my eyes always turning to the skies anytime a plane flew over my house. I was in awe of how fast these big metal birds were able to travel. I then found out I could track them. I would sit in my backyard on the Flightradar24 app and track the planes as they flew overhead. I would be in amazement seeing aircraft takeoff, flying over my house, on their way to Asia, Europe, even up to Alaska. It made the world seem a little bit smaller. Anytime my family would travel far for vacation, we would fly out of O'Hare. I loved every part of being at the airport. Getting up at 3am for a 6am flight, the smell of jet fuel as we waited in line for security, hearing the roll of turbofan engines as we waited at the gate to board, walking down the concourse to embark on our journey, and the sheer astonishment of how busy O'Hare is. How many aircraft land and depart and how many passengers were there, all traveling to their own respective destinations. Remembering this, I decided this was the career path I wanted to pursue.

The summer going into my junior year of high school was my first experience flying in a small aircraft, which happened at the 3CK airport in Lake in the Hills, IL in a Cessna 172. Since I made up my mind that this is what I wanted to do, I decided to take a discovery flight, just to confirm my gut feeling. The EAA, (Experimental Aviation Association), has a program called Young Eagles, which offers youth the opportunity to experience their first flight in a general aviation aircraft with the goal to introduce and inspire young people into the world of aviation. Since the flights are conducted by volunteers, it is completely free of charge. If you have any thought of pursuing aviation, whether small or large, I couldn't recommend enough finding a Young Eagles chapter near you to confirm this intuition. After the discovery flight, I knew more than ever that flying planes is something I wanted to do for the rest of my life.

Before Coming to Western

Alright, now that we have covered my backstory, lets get into the nitty gritty. This section I hope will be of value for any student recently admitted to Western Michigan University College of Aviation as an aviation flight science student. If you fall into that category, congratulations! You should be extremely proud of yourself! I'm sure this was no easy feat. As the demand goes up for collegiate flight training programs, the supply in number of spots accepted each year goes down. Meaning, we have a growing pool of applicants and cannot continue to accept the same amount of prospective students into our flight program. So celebrate your accomplishment in being one of the prospective students deemed qualified, admirable, and admissible into our state-of-the-art aviation flight program!

Coming in with Your Private Pilot License

Firsts things first: coming in with your private pilot license. In todays day and age, I would highly recommend finishing your private pilot license before coming into the College of Aviation. I say this for a few reasons: financial, time-saving, and experience. Obtaining your private pilot license through a Part 61 flight school in the United States ranges from as "little" as \$8000 to \$20,000 on the high end. On average, most students can get their private from \$10,000 to \$15,000. The current cost to obtain your private through Western is just over \$25,000. There will be a cost to transition into our primary trainer aircraft, the Cirrus SR-20, but overall, the vast majority of students that come into the program already with their private will have saved thousands of dollars by doing so.

On top of this, you would also be able to save time during your four years of college. What I mean by this, is in theory, you would be closer to the Part 141 flight school (what Western is) restricted ATP (airline transport pilot) license at a younger age. Myself, at 22 years 8 months old, finished our program with about 250 hours. I am currently working on my CFI (Certified Flight Instructor) at the time of writing this. Some of my peers who were the same class level collegiate speaking, are already CFIs, building hours towards the rATP hour requirement of 1000 hours and making money while doing so. Every single one of them came in with their private pilot license. A few of them did an efficient job getting through flight training in their first three years of college and were able to spend their senior year already working as a CFI for the University. This means they were building hours and making money while still finishing their class load for senior year; an opportunity I wish I would have been able to take advantage of.

Finally, the experience benefit of coming into the University with your private pilot license. Having already completed the foundational training allows you to start our program with a solid understanding of flight operations and procedures. This experience not only gives you a head start in the more advanced phases of training but also builds your confidence in the cockpit, allowing you to focus on refining your skills and understanding complex concepts. Coming in with this background prepares you for a smoother transition into the rigorous training and dynamic environment of the College of Aviation.

To speak to all of my newly accepted students who haven't began private pilot training, why don't we talk hypotheticals. Lets say you're reading this a month after getting your acceptance letter into the University—call it March. In theory, if you were to begin training

sometime in March or April and are fully committed, I am entirely confident that you would be able to finish your private pilot license by the end of August, the time in which you will be shipped off to Western for your first semester in college. Obviously, not everyone reading this will have access to the same resources and means as other students. I came in with zero flight experience myself, just a discovery flight, and have conducted and completed all of my flight training here at the College of Aviation with little issue. I am simply stating that if you have the capacity to work on and finish your private pilot license before starting school here at Western, I highly recommend doing so. If not, that's okay too, because you are in the same boat as I was.

If you are reading this and already have your private, congratulations! You should be proud of your achievement. If you are in training for your private, I wish you good luck, productive lessons, and tons of fun while you complete it!

Earning College Credit During High School

I am sure you would like to hear another potential way to save some money coming into our University: through earning college credit in high school. If you are attending a high school similar to mine, you were offered the opportunity to take honors, Advanced Placement (AP) and dual-enrollment course. For example, I took AP Calculus BC, AP Human Geography, and a dual-enrolled Intro to Speech Comm. course. This allowed me to come in with 17 credits. Based on our tuition rates for the 2024-2025 academic year, a non-resident in the state of Michigan will pay \$787.81 for each semester credit hours from 1-11, and a flat rate of \$9,453.75 for 12-15 semester credit hours. So, in theory, if you are able to take any AP and dual-enrollment courses,

even if just one, it could save you hundreds of dollars up to more than a semesters worth of non-resident tuition, potentially allowing you to also graduate sooner.

Again, if this does not apply to you, do not be dismayed! Some of my best friends I have meet here at Western came in without any college credit and had no issue finishing the program in four years! I am simply trying to let you know of ways to save money and make your life a little easier as a Aviation Flight Science student here at Western Michigan University.

The Transportation Situation

This is a good time to add a point about having your own car at school. Unlike other bigger universities, there is no restriction for freshman to have a car on main campus. A vast majority of freshman across the board have their own car. This is a discussion to be had between you and your parents or caregivers. By having your own car, you will be able to come and go on your own time when commuting between the two campuses for classes and flights, as well as the freedom to go where you want during downtime. Granted, you will have to pay for gas as well as an annual parking pass for \$300 to actually keep your car on main campus. Trust me, the parking services crew are jerks, you will get a ticket if you don't purchase a parking pass. Personally, I didn't have access to a car here at Western until my junior year. If this sounds like this will be you, we offer a shuttle bus between main campus and the College of Aviation. This bus has heating during the winter, air conditioning during the summer, and free wifi, so it is a great spot to get some homework done, do some studying, watch a movie or even take a nap. During the academic year, the bus runs from about 7am to about 6pm, every hour on the hour. There are two busses so there is always a bus leaving main campus and leaving the College of Aviation, almost

flip-flopping back and forth. If you will be taking this shuttle your freshman year, I recommend arriving at the bus ten minutes early because they leave on the hour sharp! Once I finally had a car here at Western, I would rarely take the aviation shuttle bus, but, there are some cold, icy, snowy winter days in which I don't feel like driving, so I would still hop on our bus. A final transportation recommendation for all my new students coming in without a car, like myself, is to make some friends with a car. :) And if you are coming in with a car, don't hesitate to offer rides for your peers to and from class; it can be a great way for a friendship to start and bloom!

Picking Your Classes

A quite important action you will take the summer before your first semester of freshman year is to pick your classes for the fall. You will have a few days of freshman orientation on main campus, with one of the days being a meeting with our academic advisor for the College of Aviation, who is currently Ms. Sharon VanDyken. She will walk you through the portal we use to register for classes as well as the platform we use to keep track of our degree requirements. She will recommend which classes to take the fall of your freshman year, as the majority of our aviation classes all have prerequisite courses, so she will want to make sure you are taking those prerequisites early on to allow you to flow through the degree without an hiccup.

With the opening of our brand new Aviation Education Center in the fall of 2021, your curriculum will be fully split between main campus in Kalamazoo, MI and the College of Aviation out in Battle Creek, MI. All of your general education classes and Western Essential Studies (WES) classes will be held at main campus while all of your aviation classes and flights will be at the College of Aviation. Between the two campuses is about a thirty-minute commute.

With this said, I would recommend to build your schedule in blocks. What I mean by this is I think its beneficial and more efficient to try and load all of your aviation classes on the same days and your main campus classes on different days. Ideally, this would reduce the amount of times you would have to commute between the two campuses. You could try to schedule all your aviation classes on the same days of the week so you are out at the College of Aviation, fully immersed in your degree, maybe taking care of some studying or homework in between classes, or even grabbing some lunch at our bistro or going out with your friends. Then when back on main campus, you can fully focus on those courses without having to worry about bouncing back and forth between the two campuses more than you need to.

An Opportunity for a Double Major

Another important piece of information I want all my newly accepted students to understand is the opportunity for a double major with our Aviation Management and Operations degree. This is an opportunity I regret not taking full advantage of when I was first starting out as a freshman. About 70% of the curriculum between the Aviation Flight Science degree and Aviation Management and Operations degree overlap. Meaning, 70% of the classes you take as a flight science student can also be awarded credit for the management and operations degree. All of your WES classes count for both degrees and will only need to be taken once. Ten of the aviation related cognates count for both, only needing the additional Unmanned Aerial Systems course for management. In terms of general education courses, you will have to take six business related courses and a macroeconomics course for management and finally, the eight major specific courses, ranging from Introduction to Airports to Aviation Safety and Security,

International Aviation to your Administration Senior Project. This brings us to a total addition of sixteen courses you would have to take to walk out of Western in four years with a degree in Aviation Flight Science as well as Aviation Management and Operations. If you decided to tack this double major on from first semester of your freshman year, you will have no issue graduating on time. (On a side note, to obtain a minor in General Business is only one extra business course in addition to the management and operations degree. Just another thing to consider.)

All in all, I only see pros for going with the double major, as the only true con I find is the extra financial cost. You are only taking an extra class or two during the main fall and spring semesters and can always take summer classes to make sure you are still on track to graduate on time. The main reasons to consider the double major would be career advancement, to stack your résumé, and better opportunity down the road in your career.

When applying for any airline or corporate company, having a degree in management and operations will help you stand out. If I'm an equal applicant to you in every regard except you have a management degree, it will definitely set you apart.

Lets say down the road you want to step into a behind the scenes roll at your company and reduce the hours you are flying—which is more common than you think—it would be very easy to do so already having a management and operations degree.

Last, not to get pessimistic or anything, but to be a skeptic, imagine way down the road you have a health scare and are unable to fly anymore. Already having a backup plan with a management and operations degree with make a transition easier and smoother.

The FAA Medical Process

On the topic of health, let's quickly discuss the FAA medical process. This will be more geared towards students who haven't begun private pilot training, because if you have, you already know what I'm talking about! In order to fly at all here in the United States, you must have a current and valid FAA medical certificate. This is true for a student pilot working on their private to the thirty-year major airline captain that flies across the ocean. This can be obtained through an Aviation Medical Examiner (AME). A quick google search of "AME near me" and you will be able to find one closest to your area. The cost of these exams range from \$75 to \$300. There are also three types of medical certificates: first, second and third-class. My advice to you is to obtain a first-class medical certificate the summer before coming to Western because you will not have to worry about renewing your medical for a full 60 calendar months (5 years). This way, your medical will be valid for all four years of college plus a year after that.

Student Housing

To close our Before Coming to Western section, let's go over student housing for your freshman year. There are a few things to consider here. First of which is if you fall under the commuter category. There is no first year on campus living requirement, so Western Michigan as a whole has a large commuter population. If this is you, then you will live at home then commute to your class at main campus and out at the College of Aviation. I assume that is the minority of new students reading this paper.

I couldn't stress enough the importance of living on main campus your freshman year. This way, you will get the full college experience of living in a dorm, eating at the dining hall

with your friends, and simply being fully immersed in the on campus life Western has to offer. You then will get to decide what dorm you want to live in. You will have a few options. Western heights, the valley dorms, or Henry hall.

The University hosts major specific learning communities as a way to meet new students in your major as well as to provide you with an upperclassman resource. The Aviation House is hosted in Henry Hall, one of the older dorms on campus. My freshman year I chose to live in the Aviation House. Though not required, there are massive benefits to living in the Aviation House. Since every student will be someone in one of our three aviation degrees, it is easy to make friends as you already have that in common. More than likely, many of these students will be taking the same classes as you, so it is effortless way to collaborate with your peers whether its working on homework and projects together, or offering and receiving help with your classes. That upperclassman resource I was talking about is a fantastic way to gain insight into your classes and a brain to pick with any questions that arise your freshman year, or even if you just want some advice. The only con to living in the Aviation House is unfortunately, it won't be in the nice new dorms on main campus. It is an older style dorm with two people to a room, each floor sharing a large community bath and is a coed hall with male or female wings. Granted, it is a centralized location, close to all of your main campus classes, the student center, the recreation center, the library, and the bus stop if you are taking the shuttle bus to the College of Aviation.

If you decide to live in Western Heights, you will be in the newest dorms on campus, which opened up in 2017. This dorm is coed pod style living, with single gender pods of about twenty-four students sharing a community bath, with three pods per floor. Being the newest

dorms, they also have full air conditioning and heating. This was probably the dorm that you toured during your visit to main campus.

Last are the Valley dorms. These are also some of the older dorms on campus, so unfortunately you won't have any air conditioning, which is really only a problem for the first couple weeks of the school year. The Valleys are coed suite-style; each suite consisting of two rooms connected with a bath, accommodating four people per suite. In the Valleys, you will be responsible for cleaning your shared bath.

My recommendation here is to give the Aviation House a strong consideration. I thoroughly enjoyed my time living in it and met two of my best friends by living there. However, do what suits you best.

The Roommate Portal

Regardless of where you chose to live, you will have a roommate. This portal usually goes up April 1st. I would definitely try to find a roommate early so you can secure the dorm/house you want to live in early. In this portal will be a list of everyone in said dorm that is looking for one as well as their contact information. Reach out to people with similar interests and similar living habits! Talk to them! Get to know each other! That way you will be able to find a good fit which will only make your freshman year run smoother. Once you find a roommate, one of you will create this group and invite the other. This is how you will secure your roommate and dorm room regardless of the room selection group dates. If you have a friend you already know you want to live with, both parties need to have a completed housing application by Memorial Day, then you will still have to create a roommate group.

Or, you can be like me and choose to roll the dice with a random roommate assignment. Luckily, this worked out well for me as we were compatible to live with, with the only downside being I was a Bears fan and he was a Packers fan. Now I honestly don't recommend rolling with a random roommate because you honestly don't know what can happen, but if you are too lazy to find a roommate like myself, a random roommate is still an option.

Freshman Year

How to Meet Students and Make Friends

Welcome! You are just starting your freshman year. Don't be nervous or anxious, embrace the new chapter you are about to embark on! One of the most important aspects of your freshman year are making friends. As we already talked about, living in the Aviation House is a great way to meet like-minded students in your degree. Regardless, the only true way to meet people is by talking to them! I can guarantee you that every new freshman is in the same situation having the same problems you are: a new school in a new town with new people. So talk! A simple smile and a nice hello might be all you need. If you take the shuttle bus to the College of Aviation, talk to people on the bus. If you have a car, offer rides to your classmates. When walking out of class, ask your peers, hey, did you understand the material today? How do you like the professor? Where do you live at on campus? These are all easy icebreaker questions to meet students and make friends. If eating by yourself during the first few weeks of college, walk up to some students at the dining hall and ask if you can sit and eat with them. I know it can be intimidating, but college is your first introduction to the real world. You have to talk to people and introduce yourself in order to make friends. Another piece of advice is to join group chats for

first-year students, regardless aviation related or not. This is a surefire way to make plans and meet other new students, whether to grab a bite to eat, study and work on homework, or even for some late night festivities. I came in to college knowing zero people. I now have a core friend group that I met all during the first month of college. Want to know how? By simply going up to them after classes and at the dining hall. You have to learn to step out of your comfort zone and talk to new students.

The Importance of Joining Registered Student Organizations

Another great way to meet new students is by checking out and joining Registered Student Organizations (RSOs). Throughout Western Michigan University, there are over three-hundred total RSOs, ranging from the Bird Watching Club, to Martial Arts, to Student Council. In terms of the College of Aviation, we have fifteen aviation specific RSOs. The first week before classes begin, you will have two welcome/orientation events and an exciting event called Bronco Bash. Fall Welcome will be an event out at the College of Aviation. You will meet other aviation students, faculty members, partner companies, and the aviation specific RSOs. I couldn't stress enough the importance of talking to the RSOs and finding at least one to join. This is an easy way in to making friends as well as the start of your professional development. All RSOs elect an executive board; joining an organization early in your college career allows you an increased likelihood of being elected to the executive board sophomore and junior year on, which looks fantastic as a leadership position on any résumé or job application. There are absolutely no cons associated with joining an RSO. Some of these organizations plan company tours such as over to United in Chicago, and Delta over in Detroit. These are free to members or

for a substantially reduced cost. Other organizations also attend an annual conference, such as Women In Aviation. This past year, they went to Orlando for conference and stayed in a fancy Airbnb fit with a pool and hot tub. The only cost for attendees was the roundtrip flight! The entire stay was paid for by the College of Aviation. These conferences are attended by the local chapters of the national organization; there are thousands of attendees from around the country, offering a perfect opportunity for networking. Please join at least one aviation RSO!

Unfortunately, I didn't join a RSO until my junior year of college; another thing I deeply regret. I'm speaking from experience here: join at least one aviation RSO!

You will then have your freshman orientation through main campus. This will be a few days long with your group randomly put together by the University. You will do team building activities and the like, learn more about your University, and also eat at the dining halls. Again, talk to your group! Meet them, get to know them, as this is another great way to meet people early on and make friends.

We then have Bronco Bash. This is usually hosted the day before classes begin on main campus. You will be able to meet all aviation and main campus RSOs, greek life, other colleges within Western, along with getting a whole bunch of free stuff! To reiterate what I have already said, talk to people. Exchange some socials. Make some friends. Your first month of your freshman year will be the greatest opportunity to do so. Trust me, I came in fall 2020, right in the middle of the covid pandemic. I had to try and make friends while everyone was in a mask; if I can do it under those circumstance, so can you.

Developing Relationships and Making Friends with Your Professors

The aviation industry is a small world. It seems that everyone knows everybody. Our professors here at the College of Aviation are top-notch, some of the best in the country, with centuries of combined experience and connections across the whole world. Make friends with them too! Each faculty member at the College of Aviation is extremely knowledgeable and passionate about what they teach. Your first days of classes, go introduce yourself! Tell them your name, where you're from, that you're happy to be here and thank them for their time. I can assure you that they won't forget this and you will start off each class on the right foot. All of your aviation classes will rarely have more than sixty students, which is quite small for a collegiate course. By introducing yourself and making friends with your professors, you offer yourself a chance to become more engaged in your classes, gain valuable mentorship, and potentially open doors for recommendations and career advice down the road. I urge you to do this not just your freshman year, but for all of your classes throughout college, at the College of Aviation and on main campus. As a final point, your main campus classes will likely contain a hundred students plus. By getting to know your professor, this shows you care and can help if you need an extension on any assignment, or happen to miss an assignment and need an extra day to get it done, which might not be the case for a student in the back row just trying to get by.

How to Succeed in Your Classes

Last but not least, ace all your classes your freshman year. Your course load won't be entirely difficult. Find some study partners, get help from your professors, peers, or tutors if you need it, and don't procrastinate. Ask questions during class if you don't understand the content; I

promise you that at least a few fellow students have the same question. Stay after class and ask your professors for clarity on material you can't fully grasp. Take your time doing assignments and be sure to create folders on your laptop to save all material so you can look back on it later. To be honest, I am quite the procrastinator. Waiting to the last minute to do school work only creates unnecessary stress. Don't make your life harder than it needs to be and get assignments done early. This way you can actually enjoy your weekends and downtime, without having stress creep into the back of your mind. Remember that your grade point average (GPA) is cumulative. By acing your classes freshman year, you only set yourself up for success throughout the rest of college. As an aviation flight science student, you have to maintain a minimum 3.0 gpa in your aviation courses; why not go for the gold and get that 4.0? It will make your parents/caregivers happy, boost your confidence, enhance your résumé, and possibly pave the way for internships and job opportunities down the road.

The Rundown on Flight Training

Current Cost

Alright, the ins and outs of flight training. Let's start with cost, to get that out of the way. Our aviation flight science program is expensive. No ifs, ands, or buts about it. You will have to pay for your base level tuition for all of your classes on top of the flight fees to actually, you know, fly. The way we bill your flight fees are as labs. Let's say you come in with no flight experience. You will begin with Flight Lab 1A, the first half of the private pilot course. Suppose you register for this the spring semester of your freshman year. You will register for Flight Lab 1A just like any other course. That amount, which sits at \$12,515, will get paid through main

campus. They will then send that money over to the College of Aviation and it will get put into your flight account. After each flight, you will do a debrief with your certified flight instructor (CFI). You will talk about the flight, what went well, what went wrong, what do we need to improve on for next time. At the end of this debrief, you will see the amount the flight cost. Your CFI will put in their special pin, you will put in your special pin, and you will see the cost of the flight deducted from your flight account. If you didn't already know before coming to Western, the current cost of our flight program stands at \$76,694. Expensive, I know. We come to this value by taking the average cost it takes the average flight student to complete our program, then add at 10% buffer to that. The buffer is incase you need to do extra remedial flights, you already have the financial built in to do so.

A New Fleet of Aircraft

Our current fleet of our primary training aircraft, the Cirrus SR-20 is twenty years old. This past year, we placed an order for thirty-two brand new Cirrus SR-20 TRAC model aircraft. At the time of writing, we currently have fifteen of them deliver. By the time you start flight training her at Western, our old fleet will be fully replaced with the new one. This is pretty cool for you because you will be training in brand new aircraft! But, I can almost guarantee it will be more expensive because of this. Expect flight fees to get more expensive year to year throughout your college career because of this new flight as well as inflation. Simply put, just be aware of what you are getting into.

The Keys to the Kingdom; Our Training Course Outline

Being a part 141 flight school, we have an Federal Aviation Administration (FAA) and Aviation Accreditation Board International (AABI) approved flight training curriculum. This is called our Training Course Outline (TCO). During your indoctrination ceremony, you will receive a big ol' binder with the TCO encased. I would recommend downloading the pdf version to your phone and/or iPad so you don't have to lug that thing around. I like to say that the TCO is your keys to the kingdom. It contains every flight lesson, ground lesson, and simulator lesson you will do throughout your flight training. This provides you the chance to be completely on top of your training. It allows you to always know the content for each flight lesson you will do. So take advantage of that. Read up on your lessons, review the specific material for each lesson, even chair fly your lessons. (Sitting in a chair and envisioning yourself in the aircraft, practicing maneuvers, checklists, tasks, and emergency procedures.) This will make your flight training run much smoother. It also creates a productive learning environment between you and your CFI. By doing your "homework" for your flights, it will enable your CFI to do a lot more actual teaching then having to help you through everything. This will also just save you time and money when it comes to your flight training.

Required Written Exams for Each Required Rating

For each required rating for the degree—private, instrument, and commercial—the FAA has a written exam that must be taken before your end of course exam, the term for which is called a check ride. Studying for this is solely on you; your CFI can't help with this. Don't procrastinate studying for your written. It will only delay your training. Knock out your written

exams early in training for each rating so you don't have to stress about it. For each rating, you will also take a semester long ground school course. By completing your written and getting at least an 85%, you will get credit for the final and won't have to take the final. Another added benefit of getting your written exam done early! The current cost for each FAA written exam stands at \$175. They must be taken at an FAA testing center. There are a couple centers up near Grand Rapids, MI and a few near the Michigan-Indiana border. There is plenty of study material available for purchase to study for your written, the most common being SheppardAir. I highly recommend using their software to study for your written exams. Take a week, lock in, and study for your written everyday with the SheppardAir study software and your written will be a breeze.

Flight Blocks

Early this year in 2024, we switched over to a new scheduling system with the introduction of flight blocks. By the time you are a student here, this system will be fully implemented and hopefully have all the kinks worked out. Expect to have lessons scheduled three days a week, either on a Monday, Wednesday, Friday block, or Tuesday, Thursday, Saturday block. For private pilot and private transition course students (students coming in with their private), expect the times of your blocks to be early morning to mid afternoon. Instrument students later afternoon to evening and night, and commercial students late morning to late afternoon. All in all, be diligent in picking your classes and flight blocks so they don't interfere with one another. Again, I recommend building your classes and flight blocks around each other so you can be out at the College of Aviation all day, focus on your flying and aviation specific courses, and minimize that commute between the two campuses.

Stage Checks and End of Course Checks

Part of our TCO requires middle of course stage checks. You can think of these as checkpoints in which you have to pass that checkpoint in order to continue on to the second half of the course. If not, you will just have to do some extra training before you attempt that stage check again. There is a stage check for private pilot students, instrument students, and commercial initial students. I highly recommend ensuring you are fully confident that you will pass each stage check the first try before you turn in the form to schedule them, otherwise you may end up delaying your training and spending more money. Each stage check consists of a ground portion discussing the material you should know at that stage as well as a flight to show the CFI (who will be different from your regular one) that you are capable of maneuvering the aircraft to the degree you should for that stage. On top of this, you will also have end of course checks for each rating. These will have to be completed before you are able to schedule your actual check ride. These work similar to the middle course stage checks as it will be conducted with a different CFI than your regular one, with the key difference being you should now be familiar with all of the material for the required rating for the ground portion on top of all of the aircraft specifics for the required rating. Again, don't turn in that form until you feel fully confident that you will be able to take care of business the first try, which will save you time and money and also boost your confidence.

In-House Check Rides

A huge benefit of attending Western Michigan for your flight training are in-house check rides. For your private pilot and instrument check rides (again you can think of this as your end

of course exam), they will be conducting in-house. Meaning, a chief, lead, or veteran CFI from Western will be conducting your check ride. This is nice because it helps eliminate some anxiety associated with a check ride as you know its someone from the same flight school that you attend. For example, my instrument check ride was conducting by my semester long instrument ground school instructor, so we already knew each other and had a relationship developed—another key reason why I urge you to develop a friendship with all of your professors! On top of this, it is the flight school scheduling your check rides, so when you turn in the form that you are ready for your check ride, the flight school will assign you an examiner based on your and their availability. You don't have to do any reaching out to find a Designated Pilot Examiner (DPE) to conduct your check ride, which isn't the case for part 61 flight schools and won't be the case for your commercial initial and add-on check rides.

Finding Designated Pilot Examiners

Once you become a commercial student, you will still have a stage check and end of course check with a CFI from the flight school, but when scheduling your actual check ride, you will have to reach out to DPEs and schedule it yourself. The day you pass your end of course check for commercial, I highly recommend reaching out to at least three if not every DPE in the area and try and schedule your check ride as soon as possible. The College of Aviation has a contact list of all the DPEs in our area, so please use this to your advantage. During the busy summer months, DPE availability can be scarce, so it is imperative to get on the books with a DPE as soon as possible. Keep your availability open so whatever day works for the first DPE that gets back to you, you are able to take that. Again, scheduling your check ride as close to

your end of course check for commercial will only save you time and money. (Sense the common theme here?)

Commercial Single-Initial vs Commercial Multi-Initial

Once you get to the commercial stage, it will be up to you to decide if you want to do commercial single-initial or commercial multi-initial. Whichever one you don't choose, you will then have to do the add-on course (either multi add-on or single add-on). To provide you with some pros and cons, if you go commercial single-initial first, you will be able to stay in the Cirrus SR-20, an airplane you should already be extremely familiar with. If you want to go the CFI route, you can also go work on and get your CFI the day you finish you commercial single-initial. If you go commercial multi-initial first, you will switch planes to the Piper Seminole so you will have to familiarize yourself with a new aircraft. But, since this is a multi aircraft, on your cross country flights you can fly over the great lakes, and you will gain about fifty hours plus of multi time, something that is highly sought after by the airlines. The decision for which commercial initial course to do it ultimately up to you.

Senior Year

Let's switch gears to your senior year. Congrats! You've made it thus far. Hopefully by now you are well on the way to completing your flight training, have developed some lifelong friendships, and are preparing for graduation which is right around the corner. First piece of advice here, enjoy it! You only get one chance as your last year of college so be present in

everything you do and make it count! Get off your phone and be entirely immersed with your friends, your classes, your professors, and any extracurriculars you do.

Line Oriented Flight Crew Simulation

You will also be ready to take the capstone course for all aviation flight science students titled Line Orientated Flight Training (LOFT). In this course, you will work with your sim partner for the full semester and will be assigned to you or if you have a buddy in the class, you can pick. The idea of this course will be to learn how to work in a two crew environment, with captain and first officer roles and responsibilities. This course will have a weekly lecture and bi-weekly sim session in our fancy 737max simulators. Your sim lessons will be about four hours long and you will fly full on legs. My last sim session we flew from Los Angeles to Phoenix, then Phoenix to Las Vegas, with one leg as captain and the other as first officer. I mention this course because honestly, the most studying I have done for any class at Western was for this one. You cannot wait to the last minute to study for this class as you will have to be familiar with a variety of 737max systems and procedures on top of the material you will learn during the lecture. Don't procrastinate during this course but enjoy the challenge! LOFT is extremely rewarding when you put in the time and effort.

What is Next

By now, you should have most if not all of your required ratings, graduating with around 250 hours of flight time. In order to get hired by an airline and most corporate flight departments, you will have to have 1000 hours of flight time. How do I build to that 1000 hour requirement?

This can come in many forms, whether it's a casual weekend lunch trip, taking friends up for a fun flight, or finding other creative ways to log hours. One of the most efficient methods is to find a job that pays you to fly, like becoming a CFI, ferry pilot, or even a skydive pilot. You can team up with a few friends who are also eager to build flight hours and set a regular schedule to rent aircraft from a local FBO, flight school, or flying club which will not only keep you accountable but also help in planning your flight time and budgeting your expenses.

Becoming a Certified Flight Instructor

Most commonly, you will go out and work towards and become a CFI. This will allow you to teach students while building hours and making money. Any airline likes to see the fact you built hours as a CFI because it demonstrates your commitment to the industry, your ability to instruct and mentor others, and your experience with a variety of flying scenarios. This experience is invaluable as it not only hones your piloting skills but will also prepare you for the collaborative environment of airline operations. To become a CFI, you have a few options. You can work on it through the College of Aviation (which will be expensive and time consuming), you can find a local flight school and work on it there, (usually cheaper and the length of training will be dependent on how committed you are), or you can attend an accelerated program (which will be more expensive but will greatly reduce how long it takes to become a CFI). Once you are at this time building stage, it will ultimately be up to you.

Other Important Considerations

Lets quickly cover some other important points to discuss that will be of value to you.

Getting an iPad

For our private pilot and transition course students, we don't allow you to use an iPad during your flight training. Come your instrument training, we then require students to get some sort of supplemental electronic device to use in the aircraft, most commonly an iPad. Once you begin as an instrument student, be prepared to shell out \$1000 to get an iPad. You will also then purchase a ForeFlight membership for the student discount of \$80 annually. This is how you will now be able to view instrument approaches, procedures, make electronic flights plans, weight and balance and performance data, and a plethora of other impressive features. You can get a small iPad Mini or a huge iPad Pro with a few pros and cons for both. I chose to get an iPad Air as it is bigger than the Mini yet smaller then the pro; it is also adds minimal weight to my flight bag. You may find you want a bigger screen that the Air and Pro offer or might be find with the small and sleek Mini. I will say, the iPad Pro is huge. You may find it takes too much space in the aircraft and is hard to set aside when you need to focus on flying. Again, the choice of supplemental electronic device is up to you.

College of Aviation Student Employees

A great way to meet faculty and students as well as build your résumé experience is by becoming a student employee at the College of Aviation. We currently offer four opportunities for student employment. You can work these jobs as much or as little as you like; whether one shift a week or a full forty hour work week. The first of which is the route I chose and that was

becoming an Aviation Ambassador. With this position, you will work at the front desk in the new Aviation Education Center, answering phones and emails, and will also conduct tours of our facilities here for prospective students. Maybe I gave a tour to you way back when! I found this position quite fun as it offered a way to show your passion about the program to the next generation of students. Luckily, you also get to work in a nice climate controlled building, which I found nice during the summer and winter months.

Next we have our line team. They drive around the fuel truck and refuel our fleet of aircraft as well as tow our fleet in and out of our storage hangers. They also do landscaping and building maintenance around the College of Aviation. If you enjoy working with your hands and being around aircraft, this may be for you.

Then we have our student schedulers. This is the team that is scheduling those stage checks, end of course checks, and in-house check rides we previously discussed. Once you turn in your form for any one of those three checks, the scheduling team is behind the scenes looking at your availability and a check CFIs availability to get those checks on the schedule. If you enjoy problem solving and working on a computer, this is right up your alley.

Last, we have our dispatchers. They work at the front desk over in our flight operation building and simply dispatch our planes. They check in all of our flights into our system and dispatch you a set of keys for the plane you will be flying for your lesson. Their shifts can start as early as 7am and can run as late as midnight. If this sounds like something you will enjoy, please take full advantage of the opportunity!

Honestly, I didn't become an Ambassador until my senior year. I really enjoy my time and thoroughly find the value in giving tours around the College. I regret not taking this job earlier

in my collegiate career, so if you have some free time and want to get your name and face around the college some more, please strongly consider taking up a student employee job!

Staying the Summers

Once you begin your flight training, it can be a year round operation. We don't require our students to stay during the summers to continue flying, but about 90% of our students do so. Why? Because its four great months of weather! Its the perfect opportunity to get ahead of your training and fully focus on flying while not taking any classes, or maybe a class or two. At the end of the day, we are a flight school in the midwest. Every now and then, we might get some terrible winters in which flights aren't able to happen weeks on end. Granted, a huge benefit of attending our flight school is getting the experience of flying in all four seasons. You will be outside preflighting all bundled up its twenty degrees outside and also in shorts and a t-shirt completely drenched in sweat when its ninety! But, the summers are when the nice weather is here to stay. I know it can be hard to not go back home to your family and friends, but please plan on staying the summers as to not get behind on your training and to make a ton of progress.

Aviation Outlook Day

The first week of every April, the College of Aviation hosts a large career fair/networking event called Aviation Outlook Day. Over fifty companies come out, line our classrooms and hallways, and are there to meet you! It is a fantastic opportunity to meet these companies your freshman and sophomore year, shake some hands, get your name out there, maybe even grab a few LinkedIn profiles. Junior and senior year is a time to pass out your résumé, update these

companies on your hours, and even get to some job talks! There are numerous students who leave this event with a job offer in hand. Go all four years! Take full advantage of this! Its a blast! Companies fly in there planes and offer tours, even the military usually flies is an aircraft to show off to our students. Another regret I have is only going my junior and senior year. Again I will say, go all for years and talk to people!

Partnered Airline Programs

Currently, we have two major airline career pathway programs. One with United Aviate and one with Delta Propel. You are eligible to apply to these programs once you've received your private license and have taken one academic course at Western. If you get in, it works as a qualified job offer saying, we like you, graduate on time, build to your 1000 hours, fly for our regional carriers, then you will have a guarantee first officer seat at our company! There are students in this pathways who graduate our flight school knowing they will have a job at United or Delta in just a few years time. This is unheard of! You are reading this at a great time for airline hiring as there are tens of thousands of retirements that will be happening over the next few decades. Again I will say, take advantage of all opportunities available to you.

We also have a few cadet programs with SkyWest, Endeavor Air, Envoy, Republic, and Allegiant. You can apply to these programs as a College of Aviation flight student. As a cadet, you will help recruit others into the program and help represent the respective company at the College and as recruitment events.

Scholarships

Western Michigan University has scholarships you will be eligible to receive depending on your high school gpa. These range from \$6,000 total by coming in with a 3.0 gpa to \$16,000 total coming in with a 3.85 gpa. On top of this, Western has a platform called ScholarshipUniverse which will be your best location to find scholarships you are eligible for. There are over one thousand scholarships currently posted from across the country, with over \$900,000 in money to be awarded. You can fine tune your results by putting in personal information to help find the scholarships you are eligible for. A good portion of these scholarships you can apply for while still in high school including the summer before coming to college. Throughout your four years here at Western, there are also a number of internal scholarships that will open up for you to apply to. These are from the University as a whole as well as internal scholarships that are College of Aviation specific. I have attached the links for you to locate WMU scholarships, internal aviation scholarships, and the portal for ScholarshipUniverse. Though tedious to apply to countless scholarships, at the end of the day, they are like the lottery: you can't win if you don't play. So before you come to school, apply to a few scholarships, then each year of college, apply to a few more. You may be awarded none of them, maybe all of them, or somewhere in between. The truth stays the same: if you don't apply, you won't win.

Searching for Help

Being a college student is tough, especially in a rigors degree like aviation flight science. I urge you to not hesitate to search for help if you need it! Whether its any one of your classes or

for a certain stage in flight training. Talk to your CFI, talk to your friends, talk to your professors, talk to the chief and leads of the College. There are plenty of resources at your disposal. If you need the help, seek it out. The University offers a plethora of resources for tutoring as well as counseling if you need someone to talk to. Most important, remember that your mental health comes first. If a life event happens, that is okay. Take the time off that you need. There are mental health resources such as counselors and therapists available to you free of charge. Please take your mental health seriously and get the help you need. Finally, talk to your parents, caregivers, siblings and friends from home! They miss you dearly and will be eager to chat with you at any time. When times get stressful, a phone call home always seems to do the trick.

Don't Forget to Have Fun

Last but not least, college is suppose to be fun! Enjoy yourself, but not too much :). Go to football games, basketball games, especially hockey games. Go find a friend and workout with them at the recreation center. Play some basketball or tennis. Go on a walk through campus. Smile at everyone. Take your friend up for a flight in the backseat. Go get a 2am meal. Wake up early and watch the sunrise. Join some clubs. Play for the e-sports team. Join some RSOs! Eat at new restaurants. Find your favorite place to eat to take your friends and family when they visit. Explore downtown Kalamazoo. Take a drive to the beach in South Haven. Go shopping up in Grand Rapids. Pull and all nighter and see how you feel. Find your favorite study spot. (I always enjoyed the top floor of Sprau Tower on main campus). This is YOUR four years! Make the most of it! My time is over. I just hope this paper was informative and beneficial to you and was able

to provide you with a survival guide with some dos and do nots as a Aviation Flight Science student at Western Michigan University. Good luck and enjoy the ride. Go Broncos!

Works Cited

Staff, FLYING. "How Much Does a Private Pilot License Cost?" *FLYING Magazine*, 12

Sept. 2023, www.flyingmag.com/guides/private-pilot-license-cost/.

2023-2024 Flight Lab Fees, [wmich.edu/sites/default/files/attachments/](http://wmich.edu/sites/default/files/attachments/u5851/2023/2023-2024%20Flight%20Fees.pdf)

[u5851/2023/2023-2024%20Flight%20Fees.pdf](http://wmich.edu/sites/default/files/attachments/u5851/2023/2023-2024%20Flight%20Fees.pdf). Accessed 30 July 2024.

"2024-25 Tuition and Fees." *Western Michigan University*, 27 June 2024, [wmich.edu/](http://wmich.edu/registrar/2024-2025-tuition)

[registrar/2024-2025-tuition](http://wmich.edu/registrar/2024-2025-tuition).

Appendix

Registered Student Organizations

- ALPA Ace <https://wmich.edu/aviation/student-resources/rso/alpa-ace>
- Air Race Classic <https://wmich.edu/aviation/student-resources/rso/arc>
- Alpha Eta Rho <https://wmich.edu/aviation/student-resources/rso/ahp>
- American Association of Airport Executives <https://wmich.edu/aviation/student-resources/rso/aaae>
- Association for Women in Aviation Maintenance <https://wmich.edu/aviation/student-resources/rso/awam>
- Aviation Student Council <https://wmich.edu/aviation/student-resources/rso/asc>
- Latino Pilots Association <https://wmich.edu/aviation/student-resources/rso/lpa>
- National Gay Pilots Association <https://wmich.edu/aviation/student-resources/rso/ngpa>
- Skills USA <https://wmich.edu/aviation/student-resources/rso/skillsusa>
- Sky Broncos <https://wmich.edu/aviation/student-resources/rso/skybroncos>
- SkyDive Broncos <https://wmich.edu/aviation/student-resources/rso/skydive-broncos>
- Women in Aviation <https://wmich.edu/aviation/student-resources/rso/wai>

Links and Resources

- Western Scholarships <https://wmich.edu/finaid/aid-types/institutional-offers/first-year-scholarships>
- Aviation Scholarships <https://wmich.edu/aviation/scholarships/>
- ScholarshipUniverse <https://wmich.scholarshipuniverse.com/public/home?scholarshipType=public&take=10&skip=0>
- Western Tuition <https://wmich.edu/registrar/tuition/>
- Flight Fees <https://wmich.edu/sites/default/files/attachments/u5851/2023/2023-2024%20Flight%20Fees.pdf>

- Aviation Flight Science Curriculum <https://wmich.edu/sites/default/files/attachments/u308/2023/AFSJ%202023%20Guide.pdf>
- Aviation Management and Operations Curriculum <https://wmich.edu/sites/default/files/attachments/u308/2023/AMoj%202023%20Guide.pdf>
- Aviation Bus Schedule <https://wmich.edu/busing/aviation>
- Advanced Placement Credit <https://wmich.edu/registrar/students/advising/students-advising-ap>
- Housing <https://wmich.edu/housing/>
- Sheppard Air Study Course <https://www.sheppardair.com/index.htm>
- Pilots Cafe IFR Study Guide https://www.norcalflightcenter.com/uploads/2/2/8/8/22882894/pilots_cafe.pdf