The <u>Unofficial</u> Handbook for Oregon State University Ecampus Students

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0. Disclaimers

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1. Introduction

Welcome to The Unofficial Handbook for Oregon State University Ecampus Students! I started this handbook as part of my work for the Engineering Student Council, a student-run organization at Oregon State University that oversees student organizations and events. I currently serve as the Ecampus Senator for the Engineering Student Council. This handbook is intended to be an unofficial FAQ; a list of things all Ecampus students should know. If you were sent this handbook as a standalone PDF file, the latest version can always be found at this page.

If you find any typos or errors or want to suggest future topics, please email Vincent at esc.ecampussenator@oregonstate.edu. Your feedback helps improve this handbook!

Currently four engineering programs fall under the umbrella of Ecampus. The programs are Computer Science B.S., Computer Science postbaccalaureate B.S., Construction Engineering Management B.S., and Mechanical Engineering B.S.¹ Students in these programs are the primary audience for this handbook.

2. Technical and Administrative Stuff

2.1 University Email

OSU currently uses Outlook as the email provider for your ONID@oregonstate.edu account. Previously, the university used Gmail. While students still have access to university-linked Google accounts, the Gmail component has been suspended. This means, for example, that you can access a private Google spreadsheet by logging into Google using your ONID account, but you can't send or read emails from Gmail while logged into Google. Not everyone is thrilled by the change from Gmail to Outlook. However, you still need to check your university

email regularly for important announcements from the university and messages from your graders and instructors. For example, if you accidentally submitted a corrupted file for an assignment, failing to respond to an email from your grader could mean receiving a 0 for the submission.

If you don't like Outlook's webmail interface, you can use an IMAP client on your PC and phone to check your university email instead. Instructions for setting up an IMAP client on other devices can be found here. Although the university primarily recommends Outlook apps, third party clients such as Mozilla Thunderbird for PC, the default Mail app for Apple, K-9 Mail and Outlook for Android, and many more also work. Choose your favorite IMAP client to access your ONID email without having to go through the tedious DUO authentication process every time.

The university's IT department currently forces all students to change their ONID password every 6 months. From a scientific perspective, the efficacy of this policy is debatable, but it is a policy we must all live with. Some time ago, I emailed the Chief Information Security officer David McMorries with evidence questioning the efficacy of the policy, but I never received a reply. To make your life a bit easier, use a password manager to save your ONID password. Here are a few examples of password managers.

2.2 Getting Software from the University

Fortunately, stringent password policies are not the only gifts we get from the university. All Oregon State University students get access to <u>software</u>. Some are free, while others are paid. For example, through Microsoft Azure, you can get a license for Windows 11. Your tuition already paid for the university's subscription, so you might as well help yourself! This license can come in handy if you're a Mac or Linux user and take a class that requires software that will only run on Windows.

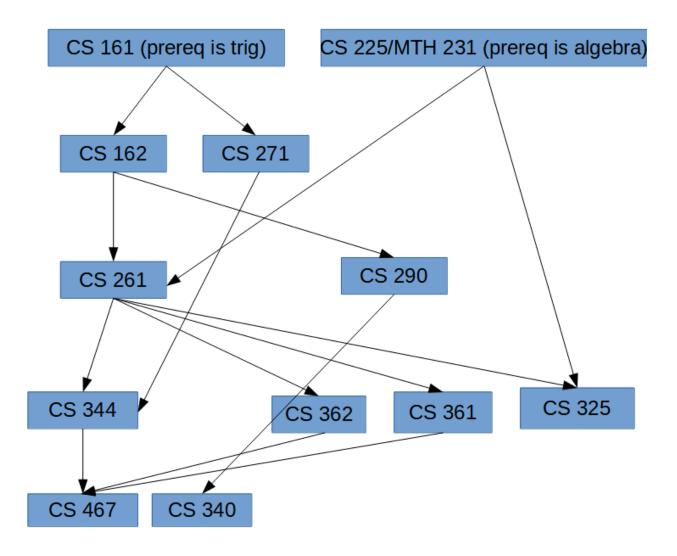
Microsoft Visual Studio is one example of software that absolutely refuses to run on Linux, so you may need to install Windows on a virtual machine powered by virtualization software such as VMware Workstation or Oracle VirtualBox. Another example of software provided free to all OSU students is Microsoft Office, which can either be used in a web browser or installed on your computer.

3. Program Requirements and Course Credits

3.1 Course Planning

Before you start registering for classes, be sure to plan ahead, both for the short term and long term. Planning requires knowing, at a minimum, all required classes, the order in which they can be taken, and when they can be taken. For example, here is a list of all the requirements for the computer science postbacc program. Advisors require us to fill out the MyDegrees planner before the annual mandatory meeting, but I've always preferred a more visual approach. In my first term at the university, I drew this flowchart of all the requirements in my program:

Oregon State University CS postbacc requirements



Choose a planning method that works for you. There is no single correct way to plan, but make sure you're aware of the classes you still need to take and when they're offered. Not all classes are offered every term! Elective classes may have very limited availability. For example, CS 475 (Parallel Programming) is only offered once per year: during Spring term. If you miss your chance to register for a course, you may have to wait another year, assuming the university still plans to offer the course then. The Ecampus Schedule of classes, a subset of the full schedule of classes, will tell you which classes will be offered in the near future.

3.2 Course Transfers

As many of you may know, the university accepts credit for classes transferred from other schools. For example, postbacc computer science students are allowed to transfer in <u>15 credits</u>. For example, you can transfer in three 4-credit classes without exceeding the 15-credit cap. Take full advantage of this policy! For example, if you find an equivalent course at a local community college at which you qualify for resident tuition rates, you could pay less than \$200 rather than over \$2,000 per class.

Aside from local community colleges, you may be able to find equivalent courses at other universities that offer remote classes. For example, the University of North Dakota offers remote classes that allow students to take courses at their own pace. Discrete math is a common UND transfer option.

The first place you can search for potential classes to transfer is at the <u>OSU Transfer Course Search</u>. The site will show you potential OSU equivalents for classes at your chosen school. Unfortunately, the site only allows you to search for equivalent classes from one school at once. For example, you can't search for potential equivalents to a particular OSU class at all community colleges in your state.

Fortunately, other sources are available. Your fellow students are one possible source of information. If you're already on Discord or one of the other unofficial student communities, you may already have heard about common transfer options. Other students are a valuable source of information and will help you get through the program more easily.

In addition, EECS advisors maintain a spreadsheet listing all currently approved transfer courses. The existence of the spreadsheet is not a secret, but nor is the data published. If you wish to see it, you'll have to schedule an appointment with an advisor. If you know of a course that might be equivalent and wish to get credit for the course, email your advisor for the procedure to get the transfer course approved. At a minimum, you'll likely need the syllabus and list of course learning outcomes for the class you want approved.

3.3 Withdrawing and Dropping

Life is not always a smooth ride. Occasionally, unexpected events will render you unable to finish a class. You were likely already told about the university's drop and withdrawal policy during orientation. But there are some nuances you may not be aware of.

In general, if you withdraw from a class after the <u>drop deadline</u>, you will only be refunded 50% of the tuition you paid. But aside from the financial penalty, the W on your transcript indicating that you withdrew from a class may not have any direct negative effects. For example, if you later apply to law school, the grade conversion process the LSAC currently applies won't punish you for Ws earned in your first undergraduate degree, meaning your converted GPA won't suffer as a result of your withdrawal.³ A pattern of Ws may still have other deleterious effects such as causing an admissions committee to question why you couldn't complete so many classes that you initially enrolled in.

In addition, there is a university-wide limit on withdrawals: you aren't allowed to withdraw from more than 18 individual classes. 18 sounds like a number you won't exceed, but you can easily rack up multiple Ws in a single quarter if you experience a crisis that forces you to withdraw from all your classes. Try to plan ahead, and either register for fewer classes or don't register at all if you think there's a chance you may not be able to fully commit to your academic work in a particular quarter.

You can take up to 4 quarters off without any penalty, and summers aren't counted. If you don't register for a single class for longer than 4 consecutive quarters, you will have to apply for readmission to the university. Sometimes, your personal circumstances will force you to take time off. Many of us have non-academic commitments to our jobs and family. If you suspect you won't be able to focus on even a single class in a particular quarter, don't force the issue. To reset the 4 quarter counter, just take one class before you exceed the 4-quarter counter. There may be other reasons to take time off. For example, I spoke to a student who took multiple quarters off to do more internships before graduating.

Another wrinkle in the university's withdrawal policy is the College of Engineering's Academic Progression Model, which requires, in part, that you "earn 65% of the credits" you attempt per term. For example, if you register for 3 classes in one quarter, withdraw from 1 after the drop deadline, and end up getting passing grades for 2 of those classes, your completion rate would be 66.7%, meeting the 65% threshold. But if you only registered for 2 classes that term and realize you have to withdraw from one of them, your completion rate would only be 50%, causing you to receive an academic warning. According to an advisor I spoke to, the 65% completion rate doesn't apply if you drop a class before the drop deadline, showing a key difference between dropping a class and withdrawing from a class.

To be clear, what I refer to as the drop deadline is listed in the university's academic calendar as "Drop a Course (100% Tuition Refund)". In general, removing yourself from a class on or before this deadline allows you to get a refund of the tuition you've already paid or owed prior to the drop minus a minor administrative fee, excludes the class from being included in your term completion rate, and leaves your transcript with no record that you were ever enrolled in the class for that term. Unfortunately, the drop deadline is usually only roughly one week into the quarter. Later Canvas modules in your class will mostly be locked, leaving you with little time and information to decide whether to drop. It may be helpful to speak to previous students who have taken the class to aid your decision.

There is a special case in which dropping can still leave a record on your transcript. If you were only enrolled in one class for the term, dropping that class on or after the first day of classes, even before the drop deadline, will still count as a withdrawal from the term. Withdrawing from a term will leave a <u>comment</u> on your transcript indicating that you registered for classes that quarter but withdrew (or dropped) from all of them.

4. Studying and Approaching Coursework

4.1 Academic Integrity

Virtually every class has an academic integrity policy that covers the copying of assignments. As trite as it may sound, do your own work. Skating in one class will only hurt your later coursework or, more crucially, your work in your future career. After dropping out of college, Steve Jobs took a calligraphy class at Reed College that he <u>credited</u> with inspiring the beautiful typography in the first Macintosh computer. According to Jobs, if not for that class, the Mac would never have had multiple typefaces or proportionally spaced fonts.

My point is that it's difficult to know how important that one class you ignored might be to your future career. In fact, many students in the Ecampus program have previous degrees or careers; we know a thing or two about how life doesn't always unfold the way we plan or expect. At the same time, unpredictability can make life more interesting. Tuition isn't cheap, so you might as well get what you paid for.

If monetary incentives and your career aren't enough, consider this: Instructors have access to modern tools that can easily detect copying. For example, written assignments can be checked for plagiarism by using Turnitin.com, a service that allows instructors to compare your submission to those of other current and past students. Flagged sections of your work can then be manually checked by the instructor to verify whether plagiarism has occurred.

Instructors can check programming assignments by using MOSS (Measure of Software Similarity), a closed source app developed by Stanford researchers. MOSS is built into Gradescope, but instructors can run manual checks even on code that isn't submitted to Gradescope. It would be trivial for instructors to check your work against all public GitHub repos, submissions from students who have taken the class in past quarters, code posted on third-party sites such as Chegg.com, and submissions from all students in your section.

4.2 Study Groups

You can make your education a more immersive experience by creating your own study groups, even if the class does not officially require groupwork. Members of your study group may remain your lifelong friends long after you've all completed your degrees. While each instructor's collaboration polices will vary, study groups can, in general, easily adhere to all university-level and course-level academic integrity policies while still helping each other learn. For example, group members can contribute to a shared repository of flashcards based on course content, discuss difficult conceptual questions, or share approaches to problems.

In a recent survey I distributed to Ecampus students, one of my questions asked students to rate the following 6 categories on a scale of 1 to 10 with 1 being worst, 10 being best, and 0 meaning the question wasn't applicable to the student:

- 1. When you encounter problems with the program, are you able to find individuals who can help you resolve them?
- 2. Do you have access to the resources (e.g. textbooks, software, etc) you need to complete your coursework?

- 3. What is your overall impression of your school?
- 4. What is your overall impression of your degree program?
- 5. How much do you feel connected to your peers?
- 6. How much do you feel connected to your instructors?

In general, students responded positively to all these questions except the last two, which received an arithmetic mean response of between 4 and 5.

The remote nature of a degree program is likely at least partially responsible for these results. Geographical isolation is an intransigent obstacle, even for a reputable program. But in an era when remote or hybrid work is common, there are ways to bridge the gap. One of those ways is to form a private study group in which you can feel more comfortable discussing your concerns and struggles.

4.3 Tutoring Services

If you're struggling with material, there's no shame in asking for help. The instructor's presentation of the material may be unclear. The material may have been borrowed from an earlier quarter, making it less relevant to current assignments. Or maybe the material just doesn't fit well with your learning style, and your study group is equally stumped.

Some questions can be posted directly on Ed, either publicly or as a private post that only instructors and teaching assistants can see. But sometimes, your question is personal, urgent, or not ideal for an asynchronous message board. In such cases, ULA and instructor office hours should be the first place you turn to. Your instructor and graders have direct knowledge of course material, and they won't need to be brought up to speed on the class expectations and assignment requirements. Getting a direct response from a grader often provides the most helpful information.

If you can't go to office hours or get the type of help you need, you can also turn to tutoring services. The university pays for students in some, but not all classes, to use PearDeckTutor (formerly TutorMe). Some classes explicitly allow or forbid TutorMe in the syllabus and in Canvas, but other classes may not mention the service at all. I've seen a student get in trouble for using TutorMe in a class for which it wasn't explicitly allowed. Before using this service, ask the instructor whether doing so is permitted, especially if you don't see a link to the service on the left side of your class's Canvas page.

Another option is the College of Engineering's peer tutoring program. You can find more information about the program on the <u>university's page</u>.

4.4 General Study Techniques

One of the truisms in higher education is that academic work is a marathon, not a sprint. Don't plan to study 16 hours per day in the final days before a deadline. Instead, plan to study at least a few hours per day. For example, it is far better to study 5 hours per day from Monday to Friday than to study 12 hours per day for two days in one week, then burn out and do nothing for the rest of the week. Doing well in a STEM program requires consistency, not cramming. You'll also retain more if your mind has time to process the new information you've learned.

Whether you're struggling to finish your coursework or just looking for a better way to study, I recommend Dr. Barbara Oakley's book A Mind for Numbers: How to Excel at Math and Science (Even If You Flunked Algebra). Her book explains the science behind the most effective ways of learning. Her techniques are particularly applicable to STEM fields.

As a student, I've also found <u>Zach Highley's</u> techniques effective. Zach was a student in medical school when he recorded some of his YouTube videos. He is now a medical doctor.

4.5 Beating Blind Exams

For the purpose of this section, I define a blind exam as an exam that is not released to students after being graded. There are various degrees of blindness. You might be able to see your missed questions and get explanations by going to the instructor's office hours. But for some classes, you don't get back the exam at all, even after every student has been graded, even if you lost points.

Instructors have legitimate reasons for not releasing exams. Rewriting questions every quarter is a time consuming process. In addition, third-party websites such as Chegg.com allow students to access past exam questions, causing potential academic integrity problems. But not releasing an exam also potentially causes serious problems.

For one, if the grader made mistakes in the grading process or wrote flawed exam questions for which there are either no correct answers or multiple correct answers, being unable to see the exact wording of exam questions renders students largely powerless to appeal the grading.

Using statistics to identify flawed exam questions won't solve this problem. For example, difficult questions that are already commonly missed may contain a subtle flaw that escapes detection because the high percentage of wrong answers is attributed to the difficulty of the question rather than logical flaws in the question. Nor will a summary of topics students supposedly missed on an exam be of much help in challenging incorrect grading. Such superficial exam review never directly address the actual wording of potentially flawed questions.

Blind exams aren't just problematic because they deprive students of a valuable learning opportunity; instructors may argue that there are many other opportunities to learn. The most serious problem with blind exams is fairness. The instructor is just as human as you are, and no amount of screening by teaching assistants or the instructor will replace the perspective of a student with direct access to the wording of a graded exam question. For example, on a blind exam that an instructor assured me had been reviewed by countless teaching assistants, I identified four flawed questions. Immediately after the exam, I emailed an instructor about the flaws. All were acknowledged and fixed. Although my grade was not directly affected, I can only imagine how many students' grades might have suffered if those flaws had gone unnoticed.

University instructors aren't alone in facing the challenge of writing objectively correct exam questions. Even rigorous standardized tests such as the Law School Admission Test have,

on rare occasions, used flawed questions that had to be removed from grading.⁶ A key difference between blind exams given at a university and the LSAT is that the entire LSAT exam is released to students with a copy of their answer sheet after the exam has been graded.

By their very nature, blind exams deprive students of the opportunity to challenge incorrect grading. If you can't see the question, how can you question the result? Yet you are not completely helpless.

For the purpose of this section, I define a flawed exam question as one for which no answer choice is correct or for which more than one answer choice is possible. If you see a flawed question on an exam, email the instructor about the flawed question as soon as you finish taking the exam, while the wording of the question is still fresh in your mind.

Second, in the first 30 minutes after you've submitted a test, do a "brain dump". Write down every question, topic, and difficulty you remember from the exam. Remember, you aren't getting this exam back. If the exam was a midterm, its topics and even exact questions may be tested again during the final. Even if the exam was the final, you need to remember any problems you experienced in case you get back an unexpected grade.

Third, if you're allowed to use scratch paper and keep the scratch paper after the exam, use the scratch paper to record the question number and wording of flawed questions. In addition, before doing any scratch paper work for an exam question, write down the number of the question. Doing so not only lets you quickly review your work if you have time to do a second pass, but may spare you from doing the problem all over again. Finally, the work you do on the scratch paper can help you prove that a question was flawed if you're concerned about the accuracy of the grading process. Some instructors may not allow you to use or keep scratch paper. In such cases, you will have to either rely on your memory of flawed questions or, if the exam allows, leave a note for the graders explaining the flaw.

If an instructor is receptive to student feedback, there are compromises that allow preserving the integrity of an exam while still allowing students to challenge flawed questions. One such strategy is to require proctoring for an exam, ensuring that students won't record exam questions in violation of class or university policies. The university currently uses Proctorio to perform automated test proctoring, making this strategy easy to apply.

Second, after the exam has been graded, students may be given access to only questions for which they were marked down rather than the entire exam. This prevents any single student from leaking the entire exam.

Third, students can be given access to their missed questions only in a controlled environment. Most instructors already allow such access, even if their exam was partially blind. In a live videoconference meeting, the student can be shown the exact wording of the questions they missed and the responses they gave to those questions, allowing the student to challenge any unfair grading.

With the proper safeguards in place, instructors can maintain exam integrity while ensuring that students are graded fairly.

4.6 Instructors

Cultivate professional relationships with friendly instructors. Go to office hours if you have suggestions for the course or assignments. Ecampus courses tend to have very high instructor to student ratios. This means there may only be 1 or 2 instructors for a particular class, giving you fewer choices of instructors. In addition, the nature of remote instruction limits human interaction.

Therefore, if you find a good instructor, cherish the opportunity and get to know them better. These instructors may be the key to internships or letters of reference. They may also give you helpful advice or perspectives in your future careers. Take advantage of office hours and Ed Discussion. In my experience as an Ecampus student, I have been taught by many wonderful instructors. Connection is possible if you seek it out.

One of the easiest ways to interact with classmates and instructors is to post on Ed Discussion or the applicable support channel for the course. I've noticed that many students ask questions on Ed anonymously. TAs and instructors can see the identity of anonymous Ed posters, but other students can't. This means you have nothing to lose and potentially much to gain if you make significant contributions to class discussions. Don't be shy! Take credit for your contributions. If your question is too sensitive to be posted publicly – perhaps it contains code, for example – you can make a private Ed post. There's no reason to make an *anonymous* private post; only instructional staff can see private posts, and they can see the author of anonymous posts!

4.7 Conclusion

Grades aren't everything. Having an amazing GPA isn't a magical key that will open all doors, especially in an era of grade inflation. For the purpose of job seeking and graduate school, experience may matter much more. An applicant's 4.0 GPA will likely mean little to employers if the applicant doesn't also possess skills and experience relevant to the job.

Ultimately, your education is what you make of it. It's entirely possible to get a perfect grade in a class and forget most of the material in just a few months. If the material is relevant to what you want to do with your degree, practice your skills with projects, hackathons, and other relevant activities to keep them fresh and even build on your existing knowledge.

5. Extracurricular Activities

5.1 Emails from the University

Pay attention to emails from the school mentioning events (e.g. <u>EECS Networking Nights</u>) and internships. I once got a summer internship thanks to a single email from Tina Batten. Also, newsletters sometimes offer you OSU Swag for replying to trivia or give you gift cards to take surveys. Surveys provide feedback to the university, the Engineering Student Council, a student-run organization overseeing student clubs and events, and other parties trying to improve your student experience.

If there's a problem with one of your submitted assignments, instructors or TAs will sometimes email you. I have seen instructors penalize students for not replying in time.

If you're unhappy with Outlook's webmail interface, consider using an IMAP client. Please see section 2.1 for more details on alternative ways of checking your school email.

5.2 Obtaining and Demonstrating Experience

Internships are not the only way to get experience. Many hackathons are held each year, giving you a chance to practice your coding skills. There are also other events catering to specific types of apps. For example, <u>Summer Slow Jams</u> are one way to get experience developing games. You may also know of other opportunities specific to your field.

Plan your activities depending on your long-term goals. Do you want to attend a graduate school program (e.g. MEng, M.S., Ph.D., etc)? If so, research internships would help. Do you want to work in the industry after you graduate? Then having at least one internship at a company, preferably from one you actually want to work for, might be more suitable.

If you're a postbaccalaureate student, your options might be different from those of undergrads. For example, postbaccs are ineligible for a program called <u>Undergraduate Research</u>, <u>Scholarship & the Arts</u> (<u>URSA</u>) through which undergraduate students can participate in academic research. Don't worry, there are many other options. For example, research-oriented students can apply to NSF summer research programs instead. You might also see emails from the university that mention open positions offered by professors. These positions are typically one-offs, so if you find something you like, act fast!

If you do well in a class, consider working for the instructor as a ULA (teaching assistant). You can put the job on your resume, potentially gain a valuable reference, and get some extra money to reduce the burden of tuition. But make sure you're comfortable working for the instructor. If not, switch as soon as possible. It's important to find someone whose personality fits with yours and who will go to bat for you. The most important reason to take the job is not to take a minimum wage job you could have gotten anywhere, but for the experience.

Maintain an updated resume so you don't have to scramble when new internship or job opportunities arise. Add any new activities at least once per quarter. The university has a career center that holds workshops on resume writing. Some friendly instructors might also be willing to help. Look up exactly when you took that odd job or took that one summer class at a community college, before you have to meet application deadlines!

6. Connecting with Others

Network with other students. They can give you tips and insights that the university may not! Here are some valuable unofficial resources the university won't tell you about:

1. Use <u>OSU Course Explorer</u> to get detailed reviews of courses, including the expected time commitment on each one. The site was created by OSU alumni Mandi Burley. The reviews are far more detailed and balanced than the ones on RateMyProfessors.com!

- 2. Discord: Invitation links to this server can change frequently. An easy way to get a recent link is to search the Reddit for the keyword "Discord". For example, if you are an Ecampus computer science student, you'll know you've found the correct Discord server when you see the server name "OSU Online CS Cohort". You can also try this link.
- 3. There are subreddits dedicated to the Oregon State University. For example, here is one specific to the <u>Ecampus computer science program</u>.
- 4. <u>Slack</u>: There may be other communities for other Ecampus programs.

Aside from forming or joining study groups in your classes, you can get involved in the university community in other ways. If you can spare the time, belonging to an organization or club can make you feel much less isolated. Many university clubs allow Ecampus members to join. You can even start your own club. You can obtain funding for your club from the Engineering Student Council. We don't bite. I promise!

7. Thank you

If you've reached this point in the handbook, thank you for sticking with me! I won't pretend all the information in this handbook is completely error-free or that my writing is perfect. If you find any typos, broken links, substantive mistakes, or glaring omissions, or if you just have a suggestion for a future topic I should include, I'd welcome an email at esc.ecampussenator@oregonstate.edu. Why is my email address in LaTeX and not copypastable? I'm hoping to stay ahead of spambots, at least until they learn OCR!

This handbook is a work in progress. If you found this information helpful, please tell other OSU Ecampus students! To ensure they have the latest version of the handbook, please link them directly to the handbook's <u>GitHub page</u>.

If you want to connect with me, add me on <u>LinkedIn</u>! If you do, please include a message explaining how you found me.

May you find joy and success in your Ecampus adventure at Oregon State University.

8. Acknowledgments

This section is a running list of all the people who made this handbook possible. I am grateful to all students who provided feedback or support, including everyone who posted feedback in my surveys that may have inspired ideas discussed here.

I am also indebted to <u>Professor Mike Bailey</u>, who provided invaluable advice on an early draft.

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