Welcome!

This survival guide is courtesy of, yours truly, the Entomology Student Organization. This third edition of the UMD ENTM Graduate Student Handbook was written for the students by the students. Welcome to the Department!

Generally Important Websites
- One.UMD where you can check your financial status, register for classes, request a transcript, and more
- ELMS is the online platform for both undergrad and grad courses
- Department of Transportation Services (DOTS) where you can buy a parking permit, pay tickets and check the shuttle schedule
- Bursar’s office breakdown of tuition and fees
- Schedule of FREE fitness classes at the Eppley Recreation Center
- (The general) Graduate Student Life Handbook
- Campus map
- The University of Maryland Libraries webpage for journal access and general research assistance
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What is ESO?

The Entomology Student Organization (ESO) in the Department of Entomology at the University of Maryland is an organization established for the advancement and recognition of Entomology graduate students. Through its Constitution and By-Laws it, “secures and protects the rights of all graduate students in the Entomology department.” These rights are established as an executive governing committee made up of a President / Faculty Representative, Vice President, Treasurer, Social Chair, and Communications Officer. These elected representatives are responsible for all duties of the ESO, such as informing students of changes to departmental and university policy, distribution of departmental awards, and the planning and execution of department fundraisers and social events. All graduate students with an advisor affiliated with the Department of Entomology are members of the ESO.

Who's who...

**Josh Kiner** - assistant to department chair; assistant to graduate director; grant preparation: ORA and other routing forms (e.g., FastLane, Grants.gov) and budget preparation; graduate student recruitment at conferences, department retreat, shared departmental spaces, visitor schedules, ESA mixer, and other departmental events including ENTM and AGNR holiday parties; parking permits for faculty and staff; and can grant permission for students to register for courses.

**Amy Yaich** - administrative assistant; FedEx/UPS shipments/pickups; mail; department conference rooms; master and supply keys; electronic resources; Green Office program; colloquium (with ESO VP); IPM conference and bug camp coordinator; bulletin boards; departmental news and departmental newsletter; web assistance (update department website, maintain an active social media presence, and write student/faculty spotlights); department directory and e-mail reflectors; answer phones and handle general inquiries.

**Jamie Carrigan** - Grant Money stuff/Lab & Chemical supply purchasing.

**Shaun Faulkner** - Environmental Chambers. Contact Shaun if you want to rent one of the programmable environmental chambers in Plant Sciences.

**Greg Hess** - IT. Greg oversees everyone’s computers, maintains the computers in the computer lab, and is generally knowledgeable. If you’ve got a problem, email him at greghess@umd.edu. He’ll also help with your personal computer or give you advice on which smartphone to buy too, just because he’s a generally helpful dude.

**Eileen Jewison** - Office supplies/keys & swipe card access/purchasing card paperwork. Eileen works 8-12:30 AM every day, so if you need to talk to her you’ve gotta do it in the morning. She maintains a supply of notebooks/pens/batteries/pencils/folders/legal pads etc. If there’s something you need for your desk/classes/etc. talk to her. If the printers are out of toner/paper talk to her.

**Bill Katsereles** - Bill oversees the office staff. He’s knowledgeable about most things in the office, but going straight to Bill probably means you’re probably going over someone else’s head. Bill can explain the intricacies of almost every bureaucratic snarl at UMD.

**Pam Biery** - Payroll/Hiring/Travel/Reimbursement. If you’re hiring a new technician, having an issue with getting paid or your health insurance, or going on a conference- or research-related trip, talk to Pam. If you don’t know who to talk to, try Pam, she’ll send you to the right person.

**Sydney Wallace** - Greenhouse Space. Sydney is the greenhouse manager. If you’d like to reserve greenhouse space first fill out the space request online. If you don’t hear back in a few days it’s best to go over to the greenhouse and follow up in person.

**Cory Whitman** - Grant applications and oversight. Cory works for the Office of Research Administration (ORA). If you’ve found a grant you’d like to apply for go talk to Cory. Any grant that you apply for has to be approved by a bunch of people first. They prefer to have the application at least a week ahead of time, but if you give Cory some warning that you’re going to be getting one in late he can be prepared to rush it. He’ll coordinate this with Josh.

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**ESO Website**
Facebook

*elections are in late spring
Degree Requirements.

The requirements for a degree are found on the entomology department website under Academics-Graduate, with separate pages for M.S. and Ph.D. requirements. As these may change between the time you begin in the department and finish your degree, it's a good idea to print out the current requirements as you begin your degree—these are the requirements you will be held to unless a major departmental change is announced that affects current and not just future students. This paper copy provides you with a copy of the requirements to which you will be held for reference and a sheet to show your advisor/committee in case of questions about your requirements. The requirements pages also have links to pdf files to track your progress and important forms for your degree. In particular, it's really handy to check out and download the graduate requirements pdf which contains a checklist of courses, committee members and meetings, and other important benchmarks that need to be met.

Course Workload.

M.S. students are required to have 30 credits of coursework to graduate. The Graduate School and the Entomology Department requires that 6 of these credits are thesis research credits (799), and at least 12 of the total credits are 600 level or higher. Additionally, 12 of the credits should be considered towards the subject you are studying as dictated by the program/committee. The Entomology Department requires two core courses of all students: BSCI 481 Insect Diversity and Classification (4 credits) and ENTM 699W Insect Physiology and Molecular Biology (3 credits). Additionally, three topic seminars are required. These can be taken in any department as relating to the area of study, but one must be Bioethics (either in the fall as MOCB 608B or spring as CBMB 688B). Every semester students must be registered for at least a credit of ENTM 788 Special Topics: Colloquium and attend every session; this does not count towards the topic seminars requirement. Students who intend to be a T.A. also need to take ENTM701 Effective Teaching, TA Training.

Ph.D. students are required to have 40 credits of coursework to graduate. The Graduate School and the Entomology Department requires that 12 of these are dissertation credits (899). After you reach candidacy, you will automatically be signed up for 6 dissertation credits every semester until you graduate. There are three core courses for Ph.D. students: BSCI 480 Arthropod Form and Function (4 credits), BSCI 481 Insect Diversity and Classification (4 credits), and ENTM 699W Insect Physiology and Molecular Biology (3 credits). Additionally, five topic seminars are required. These can be taken as a ENTM 798 course or seminars in other departments. One of these seminars must be Bioethics (either in the fall as MOCB 608B or spring as CBMB 688B). Every semester students must be registered for at least a credit of ENTM 788 Special Topics: Colloquium and attend every session; this does not count towards the topic seminars requirement. PhD students are not required to sign up for ENTM 788 after they complete their qualifying exam and reach candidacy status. Students who intend to be a T.A. also need to take ENTM701 Effective Teaching, TA Training.

In Summary.

M.S. students (30 total credits)
≥6 credits of 799 (thesis research)
≥12 credits of level 600 or higher
4 credits BSCI 481 Insect Diversity and Classification
3 credits ENTM 699W Insect Physiology and Molecular Biology
3 topic seminars (1 credit each), including Bioethics (MOCB 608B or CBMB 688B)
1 credit ENTM701 Effective Teaching
IF you TA (does not fulfill topic seminars)
At least 1 credit ENTM 788 Special Topics: Colloquium every semester (does not fulfill topic seminars)

Ph.D. students (40 total credits)
≥12 credits of 899 (dissertation research)
4 credits BSCI 480 Arthropod Form and Function
4 credits BSCI 481 Insect Diversity and Classification
3 credits ENTM 699W Insect Physiology and Molecular Biology
5 topic seminars (1 credit each; ENTM 798 or others in various departments), including Bioethics (MOCB 608B or CBMB 688B)
1 credit ENTM701 Effective Teaching
IF you TA (does not fulfill topic seminars)
At least 1 credit ENTM 788 Special Topics: Colloquium every semester until candidacy (does not fulfill topic seminars)
Course Offerings.

Check [https://ntst.umd.edu/soc/](https://ntst.umd.edu/soc/) for the schedule of courses. Register for classes through the Registrar via the registration link on [testudo.umd.edu](http://testudo.umd.edu). It is worthwhile to check on courses within ENTM (of course!), BSCI, BEES, BIOL, BIOM, BISI, ENST, MEES, and PLSC. You can take courses in any department where an applicable class is found. Greater description of courses will be able to be found in the future (as updated) on the ESO’s website at [https://sites.google.com/site/esoumd/courses](https://sites.google.com/site/esoumd/courses).

Biological Sciences

BSCI 480 Form & Function is only offered every other spring. Its next offering is Spring 2020. BSCI 481 is only offered every other fall and it’s being offered next Fall 2018. Both are taught by Jeff Schultz. BSCI 481 Insect Diversity and Classification requires an insect collection. In the past, 120 families and 18 orders were needed, so it is worthwhile to begin collecting as soon as you can!

Statistics

The BIOM program offers courses in biostatistics. BIOM 601 is an introductory statistics course, BIOM 602 is an experimental design course, BIOM 603 is a regression statistics course, and BIOM 621 is a multivariate statistics course. Many in the department take at least 601 and 602. 601 is offered in the fall and has been taught by Li Ma, and 602 is offered in the spring and has been taught by Bahram Momen. Both of these classes have been taken by many of the students in the department, so please ask around if you are considering taking these courses. Don't be shy, there are many opinions about these courses and it is worth knowing before you sign up. 601 and 602 are both taught in SAS, which can be a negative for students who prefer to work in R.

New statistics classes are also being offered in other departments. The MEES program is offering MEES 698B (fall) and MEES 708M (spring), which are Environmental Statistics classes in R. Another new statistics course is the Biology Department's BIOL 709F, Statistics and Modeling for Biologists, which is also taught in R.

University System of Maryland (USM) courses

Courses taught at other USM institutions (like the Appalachian Lab, UMCES, etc.) are sometimes available through the Interactive Video Network (IVN) - a sort of video conferencing system. Course listings in the course schedule should say if they’ll be on IVN or not, but it never hurts to email a professor directly and ask. A professor can also help direct you to the particular IVN-equipped classroom on the College Park campus where the course will be virtually held. In particular, a number of great quantitative courses, such as spatial analysis and simulation modeling, have been offered on IVN through the MEES program.

Teaching Assistants

TAs are required to take the one credit ENTM 701 Effective Teaching: TA Training in the semester they begin to teach. This course is offered in the falls, and to register, you must contact Bretton Kent (bkent@umd.edu) with your UID for permission to be granted to register online.

Teaching

If you are interested in pursuing some form of teaching in the future, the College of Mathematics and Natural Sciences offers a program called the University Teaching and Learning Program (UTLP). By meeting a few requirements, you can gain formal instruction in teaching. There are currently three different levels to allow you to get out of it what you would like. For information on the program visit [http://tltc.umd.edu/content/utlp](http://tltc.umd.edu/content/utlp). Students in the department have completed various aspects of the program, so feel free to track them down and ask questions.

Seminars

Seminars are offered sporadically, so keep an eye out for those that interest you. If there is a topic you'd be interested in, you are encouraged to ask around regarding interest and request someone(s) to teach it. You can also pursue leading a seminar yourself in a topic that particularly suits/interests you. Recent seminars in the department include:

- Insects and Climate Change (Bill Lamp)
- Environmental Restoration Applications (Margaret Palmer)
- Writing: The Myth of the Big Chunk of Time (Kelly Hamby)
- Taxonomy of Non-Insect Terrestrial Arthropods (Jeff Schultz)
- Arthropod Pests of Agricultural Crops (Galen Dively)

Other helpful hints about classes

Tuition generally covers 10 credits. When taking 9 or 10 credits, the student fees increase over taking 8 or less credits. Fees can be found at the bursar's tuition breakdown (see link in this manual). If you are taking less than 8 credits, talk to your advisor about adding thesis or dissertation credits to cover the rest up to 8 credits.
Timeline to Completion.

The department website offers suggestions for when you should or have to meet certain deadlines in staying on track for your degree. There is some flexibility in many of these times, but be sure to always discuss this with your advisor and committee. Additionally, it is up to you to be aware of these benchmarks and not to rely on your advisor to remind you. Every year you MUST complete a progress report for the department by January 31. This will include information about any presentations, publications, grants, classes, volunteer work, meetings with the committee, and other benchmarks for the department to keep track of your progress and contributions.

For M.S. and Ph.D. students, a committee should be formed as soon as is reasonably possible. You want to select a committee based upon the area of research you are pursuing, so it may take a while to determine who may be appropriate. This should be done in conjunction with your advisor’s advice. It is recommended to get a committee together within your first year and have your first meeting with them, but this doesn’t always happen. The committee will review your research proposal for your thesis, and so the sooner they are put together, the sooner your research can be fully pursued. Sometimes this may happen somewhat backwards if a student comes in with a more set project and doesn’t immediately get a committee together. As long as this is done with full communication, there shouldn’t be any problems. Secondly, after establishing a committee, you are required to have yearly meetings. These should fall roughly every year to keep your committee in the loop regarding your research progress. M.S. students need a minimum of 3 committee members, and one of these will be the advisor. Ph.D. students need a minimum of 5 committee members, and one of these will be the advisor. Additionally, at least 2 (including the advisor) must be within the entomology department, and 3 total must be UMD faculty from some department. One outside member is also required from UMD to serve as a Dean’s representative; this may or may not be someone on the full committee of 5. Because of our optimal location in the D.C. area, there are many institutes where you may be able to find committee members or collaborators, such as USDA, USGS, NIH and the Smithsonian, and other universities like Georgetown, George Mason University, and University of Maryland Baltimore County.

Ph.D. students also need to take a qualifying exam. This will be discussed with the committee, and it is generally taken in the 4th or 5th semester of residence. More information can be found on the requirements page.

When nearing graduation, be sure to check the deadlines for that semester. There are specific dates that must be met for declaring graduation, submitting the final thesis/dissertation, and other forms. Additionally, there are specific format requirements for the thesis/dissertation that need to be followed. Check academic calendars for these dates. These are generally pretty set dates. When nearing completion, the thesis/dissertation must be presented at a seminar to the department and then defended to the committee. The committee needs a copy of the thesis/dissertation in advance of this date by about 10 days. This can be potentially shifted around as dictated by your committee.

Doctoral students have various extra forms that must be completed at certain steps, so be sure to read up on these and make the deadlines for them (check website requirements). The first is not until the qualifying exam is taken. Master’s students are expected to complete the entire degree within five years—most do not take this long (2-3 years). Some exceptions can be made. Doctoral students are required to take qualifying exams and advance to candidacy within three years (and one year before graduation) and must then finish the degree within another four years. This again can be granted some exceptions. The most important thing with meeting deadlines is to be in contact with the committee, advisor, and possibly the graduate school to keep yourself on track.
Quals.

PhD students should plan on taking their qualifying exam within their first six semesters. Ideally one semester before taking the exam, and at least two months before, you should plan a pre-quals meeting with your committee. During this meeting your committee will decide the focal areas for your exam. The Pre-Qualifying Exam Form that you need to print and complete during the meeting can be found here.

Your committee is the best resource for determining what you need to be studying before the exam. Each faculty will have their own expectations for the knowledge they expect you to know, so ask each of them individually. If you have committee members from outside of ENTM who are not familiar with our department’s qualifying exam process, make sure they talk to your advisor about expectations. In addition to studying, you will also need to write your formal proposal. Your advisor may have a preferred style for the proposal. Otherwise, ask PhD candidates in the department if you could see their proposal as an example. Send the proposal to your committee members at least two weeks (ten business days) before your exam date.

The qualifying exam itself will generally take between two to four hours to complete and is an entirely oral exam. There is a form titled Qualifying Exam found here that you will need to print and bring with you to the exam. Depending on the preference of your advisor, the exam may begin with you giving a short power point overview of your proposal. In some exams, questions are focus heavily on the proposal. In others, the committee members prefer to ask questions based on your completed coursework and general entomology.

After you pass the exam, you are now a candidate! You also get a pay raise. To make this candidacy and pay raise official, the university requires you to fill out the Application to Admission to Candidacy Form, found here. Make sure to do this as soon as possible after your exam.

Advice for the exam:

The months leading up to the qualifying exam are often some of the most stressful for PhD students. Many graduates have admitted they were more on-edge about quals than they were about their defense. It’s normal to feel stressed about the exam, but if studying (or worrying about studying) begins to consume your life to the extent where you are doing almost nothing else, you need to force yourself to take a break. Talk to other students in the department if you need a sympathetic ear. Schedule sessions with the counselors at the health center or get a professional massage. Invest in a coloring book, rewatch Parks and Rec, invent a mantra (ex. “This is temporary and I am a badass”... and repeat). Whatever helps you to de-stress, make sure to schedule time for it, and do not feel guilty for doing so. Otherwise your time spent studying is not going to be nearly as productive as you think it is.

During the exam you are likely to be asked a very wide range of questions, including some real odd-balls. Your committee is attempting to determine the limits of your knowledge, so it is both normal and entirely expected that there will be questions you will not know the answer to. When that happens, answer to the best of your ability and/or reason out what resources you would use to find the answer to the question. Your committee isn’t out to get you, they genuinely want to help you. Other graduate students who had the same professors on their committees can also give you advice on what sort of questions to anticipate.

Your proposal is a big part of your quals. Find a post-doc or candidate whose opinion you value and ask them to review your proposal. Addressing their concerns with your proposal will give you good practice for addressing the concerns of your committee. Every proposal will have flaws, and asking people for feedback ahead of time gives you an opportunity to prepare your justifications or alternative methodologies before the exam. Keep in mind that a lot of candidates end up conducting research that is quite different from what they originally proposed to do. Plans change, and your committee knows that, they just want to see that you can come up with a potential plan in the first place.

Your committee will let you know right after the exam if you pass or not. Based on past performances in our department, you are extremely likely to pass on your first try. But, if you don’t, it’s really not the end of the world. You get a second chance, and on the second try you will already know what to expect from the exam.
Computing.

Setting Up/Changing Your Directory ID and Password
Your directory ID and password will be your online login information for basically everything UMD-related, from library websites to your payroll info. Your directory ID will also be the basis for your UMD email address, so choose wisely (i.e. boogereater@umd.edu might raise some eyebrows). The Division of Information Technology handles this stuff. To set these up for the very first time, go here: http://it.umd.edu/new/student.html

You'll need to change your password every 180 days, or Bad Things will happen. (Specifically, you'll be locked out of everything requiring login credentials, and you'll need to sheepishly call the Division of IT Help Desk: (301) 405-1500). The Division of IT will helpfully email (read: pester) you repeatedly in the run-up to this deadline. To change your password, go to: https://identity.umd.edu/password/changepassword

Email
Once you've created a directory ID and password, you can activate your UMD email. Your address will be [your directory ID]@umd.edu (e.g. asmith@umd.edu). This year UMD has implemented a new email system powered by Google Education. There is a lot of jargon, but essentially your email will be through Terpmail, which is a Gmail client. To login please visit: https://mail.google.com/a/umd.edu and enter [your directory ID]@umd.edu. A UMD page from the Central Authentication Service (CAS) will ask for your Directory ID and password... and then voilà!

If you are confused, you can find more information here.

Wireless Internet
There are a bunch of wireless networks available on campus. Opt to use 'UMD-Secure' when possible; like its name suggests, this is the most secure option. You'll be prompted to authenticate with your directory ID and password in order to use it. 'EDU Roam' is another secure network that you can find at many USM institutions (not just at the College Park campus); you login to this one with your UMD email address and your directory password. You can use this link to install an app that will allow you to securely connect to these networks. If you're on a device that isn't compatible with WPA2 security, you can live on the edge and use the non-encrypted 'UMD' network.

Printing
Printers in the Graphics Lab (PLS 4137) are available for faculty, staff, and grad students to use. To get access to the Graphics Lab, contact Eileen in the business office. To connect to the Lab's printers from your own machine for the first time, you'll need to have Greg (Departmental IT Guy) come fiddle with your computer.

Facilities- Graphics Lab (PLS 4137) & Copy Room (PLS 4122)
The Graphics Lab houses fast computers with software and licenses (ArcGIS, SAS, Photoshop, and more!), and scanning equipment, that students and faculty can use. B&W printing is available in this lab and color printing is available upon request at the front office. You'll need to swipe your UMD ID card to get into the Graphics Lab. Contact Eileen in the business office for access.

The Copy Room has a photocopier (please don't just print out many copies!), fax machine, scanner and shredder. Access is via your office key. This is where office supplies are also kept. Contact Josh if you need access to the supply closet.

Greg
Entomology's very own IT Guy, who will save your butt at least once during your graduate career. What with hardware malfunctions, regular phishing attempts, the wonky website, and occasional network outages, Greg is a busy guy – so reach out to him only if you really truly need his help. Email him at 3dgreg@gmail.com or stop by his office, PLS 4143 (the one with all the circuitboards stuck to the door).

Getting Computers and/or Software
UMD has used its clout to get discounts and extended warranties for faculty, staff, and students on certain Dell and Apple computers. They're a bit cagey about the amount of the discount, though, so it may be worth shopping around before deciding to purchase a computer through the University. For more information, visit the Division of IT's ACT website or stop by the physical store in the Stamp Student Union building (the 'Terrapin Technology Store,' on the ground floor).

Operating systems, Microsoft Office, data analysis software (Matlab, SAS, SPSS, JMP, etc.), design software (Photoshop, Illustrator, etc.), and more are available for free (!) online. Go to: https://terpware.umd.edu
Grid and Distributed Computing
If you need massive computational power, one option is UMD’s Deepthought2, a computer cluster.

Backup, Storage, and Sharing Files
We’ve all heard the horror stories of stolen luggage and tragic laptop accidents that wipe out years’ worth of data and documents in the blink of an eye. Don’t let that be you! UMD offers file backup and storage for all grad students, with offsite storage and continuous backups. To take advantage of this option, contact Greg (3dgreg@gmail.com). UMD also offers everyone free 50 GB of file storing/sharing space on UMD Box, a Dropbox-like application. Set up or use your account at: https://umd.account.box.com

Computer Help and Repairs
If Greg is busy or unavailable, the Division of IT Help Desk has both an online service center and walk-in service in McKeldin Library. They can assist with diagnosing your computer problem, removing viruses and other malware, and installing software and offering software support.

The Division of IT Help Desk can also handle computer repairs…IF you bought your computer through the University’s ACT program (see section above, ‘Getting Computers and/or Software’), and IF the computer is still under warranty. If a repair will take longer than a day, they’ll offer you a loaner computer.

Online Resources.

Database/Journal Searching
A whole slew of publication databases, including Web of Science, is available through UMD’s Research Port. To access it, go to: http://researchport.umd.edu/. Log in with your directory ID and password. To use Web of Science, type ‘web of science’ into the search bar and click ‘find database’.

Additionally, UMD Libraries has developed a nifty add-on – LibX – that can be added to your internet browser to give you access to publications that are part of the UMD Library catalog, independently of Web of Science or another database (among other things). You can install LibX here: http://lib.guides.umd.edu/libx. (Only available for Firefox, Chrome, and Internet Explorer up to version 1.5.3)

If you’re off-campus and stumble across a publication you want to read, instead of going through the rigmarole of finding it through Research Port, if you have LibX installed you can do the following:

1. Right click the page
2. Select ‘Reload page via USMAI Proxy’
3. Enter your directory ID and password
And voilà – publication access is granted (provided the publication is part of the UMD Library catalog).

Adding/Dropping Courses, and Transcripts
These are things handled by the Registrar’s website: http://www.testudo.umd.edu/

Clicking on ‘Registration (Drop/Add)’ will take you to a page showing your current enrollment. Enter course names as they’re listed in the schedule of classes (https://ntst.umd.edu/soc/), the section (usually 0101), and the number of credits you’re registering for (typically the number displayed in the schedule of classes…though sometimes fewer). Hit ‘drop’ to the left of any course shown on this page to drop it.

Unofficial and official transcripts are also available through the Registrar’s website. Official transcripts are free when delivered electronically or if you want a single paper copy; additional paper copies are $8 each.
ELMS
As mentioned earlier, ELMS is your online course platform. Your undergrad institution may have used Blackboard for this purpose; UMD uses Canvas. On ELMS, you'll find syllabi, announcements, course documents, assignments, etc. If you TA, you may use ELMS to post assignments and messages, as well as to grade. ELMS is pretty user-friendly, with your professors choosing what links you see for each course and what content is available. Talk to your professors for more info about navigating their course within ELMS.

Human Resources, Earnings Statements, and Billing Statements
Confusingly, earnings statements (i.e. pay stubs) and billing statements (for charges like tuition and fees, and credits like tuition remission) are on totally separate websites. To see your earnings statements, go to ARES, the HR website: http://ares.umd.edu/home/
Once you’ve logged in with your directory ID and password, click ‘Payroll and Human Services’ on the left, and then click ‘Bi-Weekly Earnings Statement’. A new window will open, allowing you to select the particular pay period you want to see.

For billing statements, go to the Financials page of the Registrar’s website: http://www.testudo.umd.edu/Financials.html
Clicking ‘Student Account Inquiry’ will show you a running tally of your billing statement. The descriptions of charges and credits on this page are infamously cryptic. If you want help decoding your billing statement, you can try contacting the Bursar’s Office, though they’re usually totally unhelpful. Your best bet is consulting the section of this handbook on funding sources, your ESO VP/First-Year Liaison, and/or Bill K in the business office.

Personal Websites
As Descartes once said, “I blog, therefore I am.” An online presence is increasingly important in science these days, for getting jobs, finding collaborators, and outreach. Creating a personal research website, with interests, a research statement, description of projects, and CV is a great way for grad students to start curating their online presence. One website creation tool, Weebly, is compatible with the Entomology Department’s website, is endorsed by UMD, is easy to use, and comes in a free version. Check it out here: www.weebly.com

Once you’ve built your personal website, contact Greg (3dgreg@gmail.com) to have a link to it installed in the Departmental site. Then sit back and watch your page views skyrocket.
Safety & Wellbeing.

Lab Safety
Safety is of the utmost importance in the Department of Entomology at UMD. If you ever see an unsafe situation in a research space do not hesitate to alert your advisor or any responsible party. If it requires immediate attention contact the appropriate authorities. There are several resources around campus to help ensure a safe and productive laboratory environment:

Todd Waters monitors safety compliance, conducts lab safety inspections, and answer any question you may have about lab safety. For more information please read his Laboratory Safety Training guide. The Department of Environmental Safety, Sustainability, & Risk also outlines most lab safety procedures on their website: https://www.des.umd.edu/ls/.

If you have a grant from NSF and/or USDA-NIFA you must take the online training for responsible conduct of research. This training may be done online at: https://www.citiprogram.org/
Upon completion of training, you must send proof (completion report) to Eileen <ejewison@umd.edu>. For further information visit: http://www.umresearch.umd.edu/RCR/

Autoclave
To those in our department that don’t follow the autoclave directions: You’re the reason we can’t have nice things. Here is Todd’s guide to using the autoclave so that we have fewer emails entitled, "Autoclave is down".

Fitness
The Eppley Recreation Center is free to UMD graduate students and provides excellent gym equipment and classes. The schedule for free fitness classes can be found here: https://www.recwell.umd.edu/mobile/Fitness/Group-Fitness

General Safety
Campus Police are available 24 hours a day, 7 days a week for both emergencies and non-emergencies. They also offer a suite of services, including lost and found, fingerprinting, a 24-hour escort service, child safety and seats, and special events.

Emergency: 911 or (301)405-3333
Mobile Phone Emergency: #3333
Non-Emergency: (301)405-3555
Address: Pokomoke Bldg. (007), 7569 Baltimore Ave., College Park, MD 20742
Website: https://www.umpd.umd.edu

Nite Ride: A free ride service (curb to curb) is available from 5:30pm-7:30am 7 days a week. The campus is generally safe, but incidents do happen. If you are thinking about walking around campus alone at night please consider giving Nite Ride a call at (301)314-NITE.

Mental Health Facilities: We have an excellent mental health network at UMD with a diversity of programs to suite your needs. Many students will take advantage of these services during their time in graduate school. Services include short term individual therapy, group therapy, medication evaluations, mental health emergencies, and suicide prevention programs. You can learn more about these at: http://www.health.umd.edu/mentalhealth/services

Health Facilities:
The UMD Health Center is there for you whether you have a mild cold, caught Zika while doing fieldwork this past summer, and everything in between. The Health Center is across the street from the Stamp, and takes both walk-ins and appointments. Prescription refills, women’s health, travel services, physical therapy, and primary care are just a few of the services offered by the Health Center. They even have that pesky required immunization form for incoming students...
Social Life Around Campus.

Despite the fact that UMD-College Park is one of the oldest universities in the country, the town of College Park can be hit or miss and hasn't quite grown into its college town potential. Thus, here are some recommendations from your trusty ESO to help navigate the College Park area.

**Grocery**

The best local supermarkets are the Safeway on East West Highway and the Shoppers on Cherry Hill Rd. There is also a Giant on Greenbelt Road and a Whole Foods on Baltimore Avenue. If you’re into organic food, there is a Mom’s Organic Market on Rhode Island Ave and a YES! Organic Market on Baltimore Ave. If you’d like to peruse produce during your lunch break, there is also a small UMD farmer’s market in front of the Tawes Fine Arts Building (a short walk from Plant Sciences). The market will open on wednesdays from 11am to 3pm from April 4th to November 14th.

**Liquor**

In MD and VA, supermarkets are prohibited from selling alcohol, so you have to go to a liquor store (unless it’s Shoppers in College Park or the YES! Organic Market, both of which sell wine and beer). The best in College Park is Village Pump Liquors on Greenbelt Rd., which has the a decent microbrew selection. Just south of campus is The Market in Riverdale, which has a well curated variety of craft beers and affordable wine. If you’re looking for quantity over quality and know someone with a Costco card, Costco in DC (but not Maryland) also sells liquor. Also, if you’re in DC keep in mind that liquor is not sold after 10pm in supermarkets or liquor stores.

**Bars**

In College Park the best is Looney’s on Baltimore Ave. They actually card so it’s guaranteed not to be overrun by drunken frat boys. The Board and Brew is the ‘chiller’ alternative to Looney’s and lucky for us, they are neighbors to one another. DC is full of great bars, with high concentrations of good ones in Adams Morgan, U Street, Dupont, and Shaw. You can find any type of environment from speakeasys to dance halls. Happy Hours are especially popular in DC, since the prices tend to be steep. A favorite HH among Washingtonians is Mandu, where dumplings (6) and beers are $4 each. The best view in DC is from the W Hotel rooftop bar, but it’s a little too pricey on our stipends [read parents visiting or special occasion].

**Food**

On campus, there is a CO-OP in the basement of the Stamp that has great food, especially for vegetarians and vegans. College Park Bagels and Busboys and Poets on Baltimore Ave are also good. For coffee, The Board and Brew is a great independent coffee shop with over 500 board games also on Baltimore Ave - plus they recently got their liquor license and are selling great craft beers. Nando’s Peri Peri is a local chain with great food and decent prices. If you find yourself hungry in DC try &Pizza, another local chain serving the best pizza in the area. It’s the high quality, yuppy Chipotle of pizza joints.
Haircuts
The DC area has the highest cost of living in the country, so it can be tough to find a great haircut for less than $60. At Luna’s Hair Design or Diego’s Hair Salon in Dupont Circle you can get a really great haircut for around $40, definitely worth the metro ride downtown. If you’re into a slightly more risky venture, you can go to the Aveda Institute in Chinatown and get a haircut by one of the trainees starting at $12 (they have other affordable hair and spa services as well).

Cheap/free stuff
Free is fantastic, especially when you’re a grad student. There are often free veggies in the Regents Parking Lot right across the bridge to Hornbake Plaza. Check-ups at the Health Center are relatively inexpensive. You can rent camping gear at the Epply Rec Center along with free fitness classes. There is free coffee every Thursday in the Graduate Student Lounge at the STAMP, and the vending machine in the basement of Plant Sciences often spits out two sodas!

Attending Conferences.
Conferences are an excellent opportunity for networking and professional development. The Entomological Society of America (ESA) meeting is the one most commonly attended by members of the department, but there are many others that may be the right fit for you, such as Ecological Society of America and Society for Freshwater Sciences. Your advisor can tell you which meetings you should consider attending.

Registration for meetings is much cheaper if you are a member of the organization in question. Membership in professional organizations is fairly inexpensive (ESA is $37 annually for students), can be included on your CV and usually comes with other perks, so discuss this with your advisor as well.

Deadlines for early registration and participating in student competitions are usually several months before a meeting, so make sure you discuss the possibility of attending with your advisor well in advance.

Advisors are often willing to pay some or all the costs involved with attending a conference, primarily registration fees, travel, accommodation and meals. If this is the case, you need to submit a travel expense form (available in the business office) to Pam before you leave, and you get reimbursed after turning in your receipts on your return. The ESO offers travel funding through the Charlie Mitter Travel Award, which is discussed in the Funding section. You may also be able to get all or part of the registration fees waived by volunteering at the meeting. If you reach out to the other grad students, you can find somebody with whom to carpool or share accommodations.

ESA has a national meeting in the fall and an Eastern branch meeting in the spring. Student registration for the branch meeting is only $50, and the 2018 meeting will be held in Annapolis, so it’s definitely worth considering! As a student, you can participate in presentation and poster competitions at ESA and other meetings. Regardless of whether you win, it’s a great way to gain speaking experience and get your research out there.

You can also participate in Linnaean Games, an entomology trivia contest for students held at ESA. While we usually take part, we haven’t had much luck putting together a team in advance and training for the contest. If you’re interested in organizing practices, or even just participating, be sure to reach out to the grad student body! For added incentive, winners receive a significant monetary prize put towards attending future meetings.
Funding.

One perk to being a grad student in the ENTM department is that you have guaranteed funding for 3 years (Masters) or 5 years (PhD). For most students, this comes as a combination of the following sources:

Teaching Assistantships

As a new TA you will likely be teaching the lab section of an intro Bio course, such as BSCI 105 or 106. There are very few ENTM courses that require TAs. Many ENTM students are half-time TAs, with the other half of their funding coming from fellowships of some sort. Before each semester an email is sent out to upcoming TAs to ask them which class they would like to teach. You can request which class you want, and sometimes you will get that class, but they often need to move people around to wherever there is an opening. Responsibilities can vary between different courses (some may have a lot of grading, while others could have long prep meetings). If you’re unsure about what different courses entail, ask around! Between us, we’ve TAed pretty much every course you may be offered.

Research Assistantships

Research assistantships are generally provided by your advisor based on when they have grant money to fund you. Depending on your advisor and their particular projects, RAs could be a lot of work or not much work at all. It is best to ask other grad students in your lab what your advisor’s typical expectations are. These can be full or half-time sources of funding as well.

University and Department Fellowships

Gahan Fellowships

A source of funding specific to the Entomology department is the Gahan fellowship. You can learn more about the history of the fund and Arthur Gahan here, but note that the eligibility guidelines are out of date. In recent years Gahan awards have been given to both Masters and PhD students. Applications for the award were not required as of 2017, but this could change in the future.

Graduate School Fellowships

The UMD Graduate School offers a wide range of fellowships, listed here. Some of these awards are given to students automatically, others require extensive applications. These fellowships are not as common to hear about in the Entomology department as the Gahan or outside funding sources, but could be a good avenue to research if you want to avoid TAs/RAs during the last few semesters of your degree.

ESO Travel and Extension Awards

There are two awards given to ENTM grad students through the ESO: the Charlie Mitter Travel Award and the Award for Excellence in Extension and Outreach. If you traveled (or plan on travelling) to a conference and would like some financial help, you should apply for the Travel Award. If you do any extension or outreach work, apply for the Extension and Outreach Award. It’s free to apply so you really have no reason not to.

Outside Funding Sources

There are a myriad of outside funding sources available to graduate students. Many major grants are specific to where you are in your academic journey, for example there are grants for students in the process of finishing their dissertations and others for students in their 1st or 2nd year. Others are specific to the type of work you do, like for those those working with stable isotopes, or who you are, like women in the sciences. Here is a growing list of available grants and their deadlines created and maintained by BISI graduate students.

Keep in mind that if your receive funding from an outside source you will not be eligible for UMD Employee Benefit medical insurance and may not be eligible for certain other types of funding. Although there is assistance available to those receiving internal and external grants, remember to discuss these issues with your advisor before applying.

The grant to which most students apply is the the NSF GRFP, the National Science Foundation’s Graduate Research Fellowship Program. The grant amount is $34,000 annually for 3 years and the award is quite prestigious. It is recommended that you apply at least once to the GRFP, if only to become familiar with the grant application process. New rules for the GRFP state that you may now only apply twice.

Grant application deadlines usually fall between October and January and most require at least 2 letters of recommendation, so plan ahead. Also, many granting agencies look for outreach work (broader impact) on your CV and or proposal, so try to get involved as early as possible. Outreach experience can range from judging a middle school science fair to volunteering with a museum or scientific society.
Transportation + Housing.

Metro
The College Park metro is only a short shuttle ride away from campus. We're on the green/yellow line which can take you right downtown in about 25 minutes and to the Columbia Heights/U Street areas in about 15 minutes. Check out this map to see the complete metro system. Google map something for directions, and when you click on the metro “Transit” symbol it automatically will estimate the approximate route using appropriate metro routes.

The only way to pay is by SmarTrip card which can be purchased online, in person at the Metro Center stop, at some CVS pharmacies, and at some Giant and Safeway grocery stores. The SmarTrip works like a metro debit card, you can add money online and in stations, and is accepted for buses, metro, and MARC trains. The unique thing about the metro system is that fares change based on how many stops you ride and whether you are traveling during ‘peak’ hours or not. Thus, you need to swipe into AND out of the stations.

If you regularly take the Metro or commute to campus by Metro, you should look into SmarTrip benefits from the Department of Transportation Services. They’ll allow you to set up regular pre-tax deductions from your paycheck that go directly to your SmarTrip card, saving you a little bit of money in the long run. (If you’re funded through your own grant, this unfortunately won’t apply to you.)

The metro opens at 5am M-F and at 7am Sat-Sun. The Metro closes at 12 everyday of the week this year. Also, there is no eating or drinking on any buses or trains. Metro employees will usually overlook water bottles and to-go coffee mugs but won’t let you on with anything else if they see you. Bikes are allowed on Metro trains, but only during off-peak hours (i.e. before 7am, between 10am and 4pm, and after 7pm).

Buses and Shuttles
The bus and shuttle system is a convenient way to navigate within, to, and from campus. There are many neighborhoods that these buses frequent, and some apartment complexes have exclusive stops for their establishment. University of Maryland NextBus has real time tracking of all the shuttles, and if you find yourself at a bus stop, you can text the number on the sign to get the next stop prediction. You can also sign up for automatic alerts for bus routes that interest you. Note that these routes will change depending on timing: semester-long routes are different than the winter break and summertime routes. The timing of the bus routes change throughout the day, in the morning they come more regularly than in the afternoon, and have a different schedule yet again in the evening. There are some buses within the shuttle system that require UMD ID to ride, and these are marked as such on the schedule route page.

Biking
If you live really close or even if you are miles away, biking can be a convenient and fast way to get around college park and to/from campus. Bikes share the roads that intersect campus, just be sure to wear a helmet, follow traffic signs, and use hand signals. There are uncovered bike racks in front of virtually every campus building. They can get stolen, so, purchase a lock, register your bike through BikeUMD, and look up how to lock up your bike if you never have! Some graduate students in the department bring their bikes into their offices or labs to store it safely. Each UMD shuttle bus also has a front metal rack where your bike can be stored while you ride the bus. The Campus Bike Shop offers free repair services for your bike. You can rent bikes daily, weekly, or semester-long through the Campus Bike Shop as well. BikeUMD has developed an interactive map showing where covered bike racks, shower facilities, bike repair stations, Campus Bike Shop, DOTS, and local trails are around campus.

Parking
Parking on campus is possible with a permit that links your license plate number to a specific lot on campus. You can register for parking and buy permits on the Department of Transportation Services (DOTS) website. The price is $293 annually for commuter students. Parking registration is in the late summer and opens on a specific date at a specific time posted on the website. Registration is already open for the 2017-2018 school year. Generally, permits are not too competitive and the SDG lot, lot 1, and lot 9 are the closest to Plant Sciences. In the summer, if you have a permit, you can park in any numbered lot.

Tickets for an expired meter are $25 and tickets for parking in places you’re not supposed to (like the Plant Sciences loading dock) are $75. Please note that parking enforcement is relentless and unceasing, so follow all parking
regulations. In most lots, parking is unrestricted after 4pm so you can park there no matter your permit status. You can only park overnight in numbered lots during the summers. Call the Office of Transportation (301-314-PARK) if you are ever unsure of the parking regulations.

During football and basketball games DOTS makes people move their cars out of lots 9 and 11 by midnight and 5pm respectively. If you have a parking permit, you will be notified about this by e-mail, so keep an eye out for those. As a graduate student you can get a special permit that allows you to stay in your space during games. Bring your schedule of classes or a letter written by your advisor that states you have to stay in the lab past 5pm to the DOTS office in the basement of Regents before game day and you will not get ticketed.*

*See section ‘Exemptions for Moving Vehicles for Sporting Events’ at this link for the specifics to obtain this permit.

Parking is an ordeal, so here is the latest 48-page document detailing all the aspects of parking, permits, fines and regulations of UMD DOTS.

Housing
Housing costs can vary considerably in the area, but tend to be on the high end. Some things to consider besides cost are safety, closeness (depending on your mode of transportation) and type (i.e., house, apartment, basement apartment, and shared or single). If you’re looking for an apartment, it can range from $900 and up/mo depending on floor plan and number of roommates you might have. Houses can be more affordable but more variable in quality and availability. The university provides some resources to find off-campus housing and potential roommates, but often these may cater more towards undergraduates. First and second year undergraduate students may live on-campus but upperclassman typically move off-campus, and some establishments cater more towards undergraduates (think, next door drunken hysteria at 2AM). Campus-affiliated housing is available for graduate students in the Graduate Hill and Graduate Gardens apartment complexes. Using sites like Craigslist and Padmapper are alternative ways to find housing in the area that are not campus-affiliated. Students often appreciate the flexibility of being close to the metro system and UMD bus routes. If you are interested in finding roommates, you should consider sending an email to the ENTM and BEES students.
I locked my keys in my office! What do I do? If the administrative office is open Josh will let you check out a master key. If Josh isn’t there, any of the office staff can let you borrow the master key. If it’s after business hours, then call campus security at their non-emergency number (301) 405-3555. Hopefully you didn’t lock your cell phone in there too.

What is colloquium and do I have to register? Colloquium is held every Friday at noon in PLS 1130 and yes, you must register at least one credit for ENTM 787C. However, PhD students no longer have to register for colloquium after attaining candidacy. Entomology-related talks are given by invited scientists from the DC area and beyond. Each talk is expected to last ~50 minutes with time for questions afterward. Once the talk is finished everyone from the department is encouraged to have lunch (free!) in the Gahan Conference Room and chat with the invited speaker. Etiquette for colloquium includes setup/cleanup each week by a rotating lab and waiting in the hallway until the speaker is served their food.

How do I get mail sent to UMD? Mail should be addressed to you:
Your Name
Department of Entomology
University of Maryland
4112 Plant Sciences Building
4291 Fieldhouse Drive
College Park, MD 20742-4454

Where/ How do I get stuff? If you need office supplies, the Department has a cabinet full of supplies (legal pads, pens, paper clips, etc.) that are available to you. Ask Eileen or Josh to unlock it for you. If you need lab supplies, talk to your PI or other members of your lab. Each lab should have at least one purchase card that you can use. Be sure to check with the people in your lab if they have an account with any lab supply companies… you can sometimes get a significant discount if the company knows you are with a University.

How do I get places? If you need to travel for field work or conferences, your lab may own a truck for such a purpose. If you need to rent a vehicle from the University, you can request one from the University Motor Transportation Services using this website http://www.dbs.umd.edu/motor/. However, if you are going to take that vehicle out of the state, you must first complete a Travel Authorization Request Form with Pam to get a Trip #. If you want to get around campus and the surrounding area, the University has one of the best bus systems around. Be on the lookout for a UMD shuttle booklet with a map of all the bus routes and schedules. Or visit the DOTS website at http://www.dots.umd.edu/ and click on the Shuttle UM tab to get all the info you need. There is a handy smartphone app called YourBus UMD Transit that shows you bus routes, and tells you when the next bus is coming to any specific stop on any route.

Lab meetings… what’s the deal? Lab meetings allow everyone in the lab, including the PI, to get together and discuss what everyone’s working on, questions people have, relevant journal articles, etc. Most labs meet once a week to discuss plans for the upcoming week, and accomplishments of the previous week. Most lab meetings are only for members of that lab, however some lab meetings are open to everyone in the department. Two meetings open to all are the Grunser Lab meeting which covers a variety of ecological topics, and the Hooks and Hamby labs conduct a Sustainable Ag Research Discussion Group (SARDG) meeting once a week. Scheduling for these meetings changes every semester, so be on the lookout for an email to ENTOALL in the next few weeks. As a member of a lab you have some input on the format/frequency of lab meetings and you should speak up if you want to meet more often or want to discuss specific topics. If your lab doesn’t have regular meetings, ask your PI if they would be willing to hold lab meetings at least during your first year as you get acclimated. Also, you can ask to join another lab’s lab meetings if you feel that they are discussing things that relate to your work.

Do I get holidays and vacation time off? Yes, but not like you did in undergrad. You should let your advisor know in advance of any extended “vacation time” you plan on taking. Most graduate students are expected to be on campus and working during major university breaks. It would be best to ask your PI and/or the veteran students
about the vacation guidelines for your lab.

*What are my hours?* For the most part, your schedule is up to you; usually you should aim for 40 hours a week. That being said, your advisor may have certain expectations or rules for their students. Some advisors expect more, while some don't care as long as you get work done. Again, you should ask your advisor or other students what is expected in your lab. Remember that you need your Student ID to access the buildings really late at night/early in the morning.

*What do I do when something bad happens?* When a problem arises, do not hesitate to go to your advisor for advice, they are there to help. However, if it is your advisor that is the problem you should go to the Graduate Director, Jeff Shultz, or, the Department Chair, Leslie Pick.

*What is a CV and how does it differ from a resume?* When applying for grants, scholarships or other funding you may be asked for a CV. A CV, or Curriculum Vitae, is a list of your career. It should be organized chronologically and should include education, publications, awards, etc. A CV can be two or more pages and is something you should always be adding to. If you would like help with writing a CV, resume or any other relevant works contact the Graduate School Writing Center at 301-405-9871 or gradwritingfellows@umd.edu.

*Where are some important places around campus?*
- Office of the Registrar: First floor of the Mitchell building - This is where you can go for transcripts and new UID cards if you lose yours.
- Office of the Bursar: 1135 Lee Building- This is where you can go to pay any fees and discuss any financial aid issues that will probably come up.
- Department of Transportation Services (DOTS): Basement of the Reagents Garage, the entrance is right in front of the Reagents bus stop- This is where you can go to attempt and fight off a parking ticket...when you get one. And you will get one… just wait.
- Grad Student Lounge: 0121 Stamp Student Union- This is a spot where you can hang out and study, play board games, and chat with other grad students. Most importantly, you can get coffee for FREE on Thursdays.
- Graduate School Writing Center: 5100B McKeldin Library. [http://www.gradschool.umd.edu/graduate-](http://www.gradschool.umd.edu/graduate-)

Please let us know if you have any suggestions or comments that will make this more helpful for current and future students!

Cheers,

ESO