Entomology Biol 3310/5510

**Tuesday/Thursday 2:00-4:00pm**

**Dr. D. Guelda Office Number – Sattgast 218i**

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**This course will cover the characteristics of hazardous wastes and its safe handling, storage, and disposal.**

**Text** –Insects: Evolutionary Success, Unrivaled Diversity, and World Domination - John Hopkins University; (2017) **ISBN-10:** 1421421704 **ISBN-13:** 978-1421421704

**Course objectives**

* Students will be proficient in using dichotomous keys to identify insects to the level of genus/species.
* Students will learn the entomological museum technique of insect pinning, labeling, and presentation.
* Students will understand the life history and reproductive strategies of the major groups of insects.
* Students will learn the basic tenets of insect morphology, anatomy, physiology, and sensory perception.
* Students will have a better understanding of insect behavior, evolution, defense and mate attraction.
* Students will have a better understanding of the role insects play in different cultures and forensics.

**Course overview**

This course is designed to introduce students to insects commonly found in northern Minnesota and therefore the love (or at least tolerance!) of those things creepy and crawly is a must! Lectures/lab incorporate information on the biology, ecology, anatomy, and physiology of insects, identification and classification of both preserved and field-collected organisms as well as the study of behavior of live organisms. Lecture/labs will be interactive with required student participation. Lecture/lab pedagogy will include flipped classrooms, traditional lectures, film clips, group work, experimental design, field experiences, data collection, evidence-based learning techniques (active learning) etc. **Note:** This course does include a moderate amount of field work both in and outside of class. Those that may have difficulty with this are advised to see the instructor.

**Attendance policy:**

When you miss class, you miss important information. If you are absent, you are responsible for learning material covered in class. I will not provide notes if a class is missed; you are responsible from obtaining notes from a classmate.

Missing exams: A makeup exam is possible if prior arrangements are made. If sick that day, a makeup is possible providing Dr. Guelda is notified via email before the start time of the exam (the beginning of class).

Late assignments: 10% will be deducted from the assignment each day it is late. If 3 days late, the assignment will earn a zero.

**Academic Integrity:**

BSU students are expected to practice the highest standards of ethics, honesty and integrity in all of their academic work. Any form of academic dishonesty (e.g., plagiarism, cheating and misrepresentation) may result in disciplinary action. Possible disciplinary actions may include failure for part or an entire course as well as suspension from the University. It is suggested that you review BSU’s statement on academic integrity found within the Student Code of Conduct.

**Taping or recording of lectures:**

Taping or recording of lectures may only occur with specific, written permission from the instructor. This is due to legal uses related to unpermitted student publishing on social media of lecture clips taken out of context (i.e. discussing organismal reproductive structures, processes).

**Expectations of Students for In-Class and Time Class Preparation**

In-class time

For each *lecture* credit university policy states that students will spend 1 hour per week in class and for each *lab* credit university policy states that a student will spend 2 hours in class for 15 weeks.

Outside of class time

For each *lecture* credit university policy states that students will spend 2 hours per week outside of class and for each *lab* credit university policy states that a student will spend 1 hour per week outside of class for 15 weeks.

As this is a hybrid 4 credit course that combines both lecture and lab, it is expected that you will spend 4 hours in class and 4-8 hours outside of class for course prep.

**Thus, your expected total time commitment for this class is 8-12 hours per week.**

**Electronic devices:**

Cell phones and laptops are welcome in the classroom with certain conditions:

* Phones must be on silent mode and use is not permitted during class unless specified by the professor.
* Laptops are welcome for the purpose of taking notes only; inappropriate use will lead to device removal
* Earbuds are not permitted during class time or in the field.
* Playing music during labs is not permitted as this can be a distraction to other students.

**Communication:**

I am to be referred to by my professional name, Dr. Guelda.

**Email:**

It is important that you begin to think of yourself as a professional and conduct yourself as such. This is important in all aspects of communication but especially email as this mode is used frequently. It is important to realize that communication to a professor/supervisor/employer is required to be more formal than a text or email to a friend. Please refer to these guidelines:

* Treat email with all university faculty and staff as a business correspondence.
* Use your BSU email account. I will occasionally email the class and only use this address (FYI - BSU email is secure, most personal email accounts are not).
* Include information on the subject line that is indicative of the content of the correspondence. “Stuff” is not appropriate; “Question about aquatic sampling this week” is effective.
* Use the Professor/Instructor/Staff’s formal title in your salutation. “Hey Dude”, “Hi Deb”, and “Sup?” are not appropriate. “Hi Dr. Guelda” is sufficient.

**Guidelines for all written work**

* All worksheets are to be identified with your name.
* All written text should be legible, edited, spell-checked, and proofread for grammar.
* Work not adhering to this policy will not be graded.

**Classroom policies:**

* I keep my lab open for your use but the lab must be cleaned up.
* Items that you are using (drawers in cabinet, specimen jars, etc.) must be labeled with your name.
* Before the final exam all of your items *must be removed* from this room.
* No eating in class; beverages are welcome.
* There may be seat assignments or seating rearrangements to facilitate group work, etc.
* Over the years I have collected taxonomic keys and specifically keep them in this room for your use; please keep these in the classroom.

**Disruptive Behavior in the Classroom:**

We at Bemidji State University believe the classroom is an environment where civility, human dignity and respect is maintained. Any variation from this for example yelling or saying profanity at an instructor or another person in the classroom, or any other loud, lewd, belligerent or obnoxious behavior resulting in a disruption from teaching, and learning are violations of the Code of Conduct and will not be tolerated. If this occurs, you will be asked to leave the classroom not to return until you meet with the University Conduct Officer and you could be subject to a judicial hearing.

**Examples of problematic behaviors:**

* **Disrespectful annoyances and minor disruptions**—Arriving late and leaving early, looking at cell phone, working on material from another class, side conversations, packing up noisily before end of class**.**
* **Dominating discussion**—Not letting others answer questions or participate in class.
* **Aggressive challenges of professor**—Creating an uncomfortable and distracted class via disrespectful verbal or non-verbal cues (eye rolls, loud sighs, whispering, giggles, emotional outbursts, tipping back in chair) by generally undermining the learning environment.
* **Disrespectful comments and language**—Using contemptuous language in or outside of class.

**Course Schedule**

The amount of material covered in each lecture is dependent on the level of comprehension by the students and the difficulty of the subject matter. Because of this, the schedule below is **tentative**. Adjustments in required readings, lecture and exams may be made as necessary. In order to keep as close to the schedule as possible, some material may not be covered in class and the student must accept the responsibility to learn the material from the text. The instructor will inform the students of this. Additional reading assignments may be required and will be provided by the instructor. NOTE – due to the interconnectedness of insect subject matter, single topics are found within MANY chapters.

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| **Date** | **Day** | **Subject/Activity** | **Assigned Reading** | **Notes** |
| August 22 | Tuesday | Syllabus and Introduction | Chapters 1/2 |  |
| August 24 | Thursday | Field jars, equipment overview, pinning exercise |  | Field/Lab Day |
| August 29 | Tuesday | Hobson Memorial Forest  Field collection |  | Field Day |
| August 31 | Thursday | Pinning |  | Lab Day |
| September 5 | Tuesday | No Class BSU |  |  |
| September 7 | Thursday | Hobson Memorial Forest  Quantitative sampling – insects and evidence |  | Field Day |
| September 12 | Tuesday | Turtle River  Equipment overview, sampling techniques, field collection |  | Field Day |
| September 14 | Thursday | Turtle River  Quantitative sampling |  | Field Day |
| September 19 | Tuesday | Free Collection Day  Student choice of location |  | Field Day |
| September 21 | Thursday | Lecture – Morphology | Chapter 5 | Quiz I  Field collection, etc.  Does not include information on Morphology |
| September 26 | Tuesday | Lecture – Nervous system | Chapters 10/11 | Lecture/lab |
| September 28 | Thursday | Lecture – Nervous system | Chapters 10/11 | Lecture/lab |
| October 3 | Tuesday | Lab  Information about presentations  “What to do, what not to do” |  | Work on lab report  (Quantitative data - sample processing and methods) |
| October 5 | Thursday | Lecture – Circulatory system |  | Quiz II  Lecture information presented to date – does not include circulatory system |
| October 10 | Tuesday | Lecture -  Sensory perception | Chapters 10/11 | Lecture/lab |
| October 12 | Thursday | Lecture -Sensory perception | Chapters 10/11 | Lecture/lab |
| October 17 | Tuesday | No Class |  | MN Water Conference |
| October 19 | Thursday | Lab |  | Work on lab report  (Data management, introduction, and results) |
| October 24 | Tuesday | Feeding | Chapter 8 | Lecture/lab |
| October 26 | Thursday | Reproduction | Chapter 9 | Quiz III  Lecture information presented since Quiz II – this does not include reproduction |
| October 31 | Tuesday | Flight |  | Lecture/lab |
| November 2 | Thursday | No class |  | AACU STEM conference |
| November 7 | Tuesday | Ecology |  | Lecture/lab |
| November 9 | Thursday | Symbiosis | Chapter 11 | Lecture/lab  Lab report due |
| November 14 | Tuesday | Symbiosis | Chapter 11 | Lecture/lab |
| November 16 | Thursday | Behavior | Chapter 10 | Quiz IV  Lecture information presented since Quiz III – this does not include behavior |
| November 21 | Tuesday | No class BSU |  | Thanksgiving break |
| November 23 | Thursday | No class BSU | Chapter 3 | Thanksgiving break |
| November 28 | Tuesday | Beneficial | Chapter 3 | Lecture/lab |
| November 30 | Thursday | Pests | Chapters 4/14 | Lecture/lab |
| December 5 | Tuesday | Work on collection |  | Quiz V  Lecture information presented since Quiz IV |
| December 6 | Wednesday | No Class - BSU |  | Reading Day |
| December 8 | Friday | Collection Due  9:00am |  | Collection Due  9:00am |
| December 13 | Wednesday | Final Exam  This is a cumulative lecture/lab exam |  | 10:30-12:30 |

**Expectations required to succeed in this class:**

* + Obtain passing scores on all quizzes, pop quizzes, lab reports, final exam, and the collection
  + Actively read appropriate sections in the text
  + Attend 2 presentations of the Biology Seminar Series and complete assignments
  + Take the final exam when scheduled

## Graduate Credit:

For those students taking this course for graduate credit, additional assignments and exam questions in addition to the above will be required. We can talk more about this one-on-one.



# Points for the course

Mini quiz = **25**

Pop quizzes (5, 10, 10 pts)=  **25**

5 quizzes @ 50 = **250 Grade distribution:**

Lab report=  **50**

Presentation = **50**  Standard 90%+ = A, 80%+ = B, etc

### Collection = **150**

Final Exam = **100**

Seminars/Assignments = **50**

Total possible points = **700**

**Students with Special Needs:**

BSU is committed to making all educational programs, course materials, services and activities sponsored by the University accessible to individuals with disabilities. Students requesting accommodations due to a disability or other need for access should contact Accessibility Services as soon as possible.  Accessibility Services is located at Decker Hall 202.  PH: 218.755.3883 or email: [accessibility@bemidjistate.edu](mailto:accessibility@bemidjistate.edu).  This information is also available through Minnesota Relay Services at 800.627.3529.

**Tutoring Availability:**

BSU is committed to assisting our students in their academic endeavors and has in place the Advising Success Center as a valuable resource: <https://www.bemidjistate.edu/services/advising-success-center/services/tutoring/> The Advising Success Center is a great place to improve your academic skills and excel in your classes. The center is located in Decker Hall 202. Of course, if I can be of any assistance in finding a peer learning group for you in the course…just let me know!

**Tutor.com:** The Minnesota State system has updated the online tutoring service available to our students.  We are now partnering with Tutor.com to offer 24/7 online tutoring, which will connect students with an expert tutor for extra assistance one-on-one. Online tutoring services can be accessed through the main page in D2L and your course page, by clicking on the tutor.com link, located in the “HelpLinks” menu.

**All students will receive 15 hours of tutoring at no cost.**  Tutoring services cover a variety of subject areas including math, writing, accounting, economics, biology, languages and nursing.  Additional time may be purchased by students directly through tutor.com.

**Extended Leave Procedure:**

If student has to be away from class from an extended period of time (more than two class sessions) for medical emergencies or a funeral, you are asked to contact the Student Life and Success Office where a leave notice will be given to your faculty. This notice informs the faculty of your departure and return date back to campus. This leave does not absolve you from any assignment you have due during your leave. You are to make arrangements with your instructors of when to complete any assignments due during the leave period. You can complete a leave form as this website <https://www.bemidjistate.edu/offices/student-life-success/extended-absence/>

**Mental Health and Counseling:**

Students may experience mental health concerns or stressful events that may lead to diminished academic performance. The Student Center for Health & Counseling is available to assist you with concerns and can include **stress relief services**. They can be reached in Cedar Hall, First Floor. Phone: (218) 755-2053. And of course, if I can ever be of assistance, please don’t hesitate to let me know; I am your first line of defense…and here to help YOU!

**Office visits:**

I am happy to be of assistance whenever possible! Office hours are on my door and I make a conscious effort to communicate if hours have changed due to meetings, etc. When coming to my office, please adhere to the following etiquette:

* If I am in a conversation with another person, please ensure that I know you are needing to see me (eye contact). Once I realize you are waiting, please step back from the doorway to allow privacy and respect for the existing conversation.
* If I am not in my office but my door is open, this is a cue that I should return shortly. Please wait for me outside of my office or in the chairs in the Sattgast hallway; do not enter my office when I am not there.

**Professor accessibility:**

If at any time you are having trouble with this course, *please let me know!* Office hours are posted on my door. Whether during office hours or not, if my office door is open, feel free to drop in! If closed, I am working, meeting with someone, on the phone, in the middle of research, etc. Please return later. If you want to discuss something at length, I’ll be happy to schedule a meeting. This is my 17th year at BSU and my 22nd year teaching**. I absolutely love teaching, students, and seeing success and learning through hard work and commitment. It is an honor to be your professor.**

Upon request this document can be made available in alternate formats.

Please contact Accessibility Services (755-3883)