Syllabus	
Course Information	EVPP 302 Syllabus Environmental Science: Biomes and Human Dimensions Location: Distance Education/Blackboard
Instructors Office Hours 11am-12pm Mon, Wed by appointment. Please email me and TA to schedule meetings.	Dr. Cynthia Smith. csmitc@gmu.edu Chelsea Gray, TA cgray21@gmu.edu Please refer to your online course: https://mymasonportal.gmu.edu/ We have Synchronous and asynchronous class meetings. I will be present and online for any questions, during every class period – even if we are not meeting on Zoom. Office Hours 11:00-12:00am M, W by appointment. Please email, myself and Chelsea to schedule a meeting. We also have an Ask the Instructor Discussion tab in BB.
Course Description	Together with EVPP 210 and 301, this course is part of a three-semester sequence for Environmental Science majors, which provide authentic experiences with environmental skills, ecological issues and policies, as well as techniques to prepare students for future careers.
Course Objectives	Upon completion of the course, students will be able to: 1. Students will demonstrate the ability to synthesize information and execute experiments that provide a measurable understanding of human impacts on natural resources. 2. Students will demonstrate the ability to analyze research papers and data, assess reliability, interpret results, draw reasonable conclusions and clearly communicate these in written and oral form. 3. Students will gain insight into environmental career opportunities through coursework and interaction with natural resource professionals across environmental industries.
Course Methodology	The lecture class format will combine reading, lectures, presentations, group activities and other learning tools. The class is interactive and requires every student to be engaged in the classroom discussion and assignments. In addition to the lectures, screencasts and timely completion of assignments, every student will be expected to be an active participant and a dedicated individual applying what you learn to every element of the course work. We value your important contributions and use them for assignments.

Required textbook(s) and/or materials	Required Text: (these are the same from EVPP 301) S&S: Elements of Ecology. T.M. Smith and R.L. Smith. 9th ed. Other readings and viewings as assigned, found in Course Modules in Blackboard
Computer Requirements	**Hardware:** You will need access to a Windows or Macintosh computer with at least 2 GB of RAM and access to a fast and reliable broadband internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to hear recorded content and a headset with a microphone is recommended for the best experience. For the amount of Hard Disk Space required taking a distance education course, consider and allow for: 1. the storage amount needed to install any additional software and 2. space to store work that you will do for the course. If you consider the purchase of a new computer, please go to Patriot Tech to see recommendations. **Software:** Many courses use Blackboard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the Blackboard version available on the myMason Portal. See supported browsers and operating systems. Log in to myMason to access your registered courses. Some courses may use other learning management systems. Check the syllabus or contact the instructor for details. Online courses typically use Acrobat Reader, Flash, Java, and Windows Media Player, QuickTime and/or Real Media Player. Your computer should be capable of running current versions of those applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free here. Students owning Macs or Linux should be aware that some courses may use software that only runs on Windows. You can set up a Mac computer with Boot Camp or virtualization software so Windows will also run on it. Watch this video about using Windows on a Mac. Computers running Linux can also be configured with virtualization software or configured to dual boot with Windows. Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.
Course Website	Blackboard will be used for this course. You can access the site at http://mymasonportal.gmu.edu. Login and click on the “Courses” tab. You will see EVPP 302. NOTE: Username and passwords are the same as your Mason email account. You must have consistent access to an internet connection in order to complete the assignments in this course through Blackboard (http://mymason.gmu.edu). Let us know if this is an issue.
Participation	Learning can only happen when you are playing an active role. It is important to place more emphasis on developing your insights and skills, rather than transmitting information. Knowledge is more important than facts and

We connect on Zoom link in Blackboard	definitions. It is a way of looking at the world, an ability to interpret and organize future information. An active learning approach will more likely result in long-term retention and better understanding because you make the content of what you are learning concrete and real in your mind. Although an active role can look differently for various individuals, it is expected in this class that you will work to explore issues and ideas under the guidance of the professor and your peers. You can do this by reflecting on the content and activities of this course, asking questions, striving for answers, interpreting observations, and discussing issues with your peers. This course asks you to apply and synthesizes material you have learned in previous courses.
Rules and Expectations	In correspondence/communication students will be expected to: a) Be professional and respectful in correspondence b) Make reasonable requests of the instructor. We will be happy to clarify course material and answer legitimate questions; however, please exhaust other information sources (e.g., syllabus, Blackboard) for answering your question before contacting me and remember, "Poor planning on your part does not constitute an emergency on my part" In regard to honesty in work students will be expected to: a) Review the University integrity and honesty policies in the student handbook for guidelines regarding plagiarism and cheating (summarized below). I will gladly clarify my stance on any questionable or "grey area" issues you may have. b) Refrain from dishonest work as it will receive a minimum penalty of zero on the assignment and a maximum penalty of a zero for the course with a report to the Honor committee. The GMU Honor Code requires that faculty submit any suspected Honor Code violations to the Honor Committee. Therefore, any suspected offense will be submitted for adjudication.
Mason Honor Code	**The complete Honor Code is as follows:** *To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code:* **Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.** *(From the Catalog – catalog.gmu.edu)*
Cheating Policy	Any form of cheating on an activity, project, or exam will result in zero points earned. "Cheating" includes, but is not limited to, the following: reviewing others' exam papers, reviewing online question sources and/or having ANY resources utilized when not allowed, collaborating with another student during an individual assignment. If you have questions about when the contributions of others to your work must be acknowledged and appropriate ways to cite those contributions, please talk with the professor or utilize the GMU writing center.

Plagiarism and the Internet	Copyright rules also apply to users of the Internet who cite from Internet sources. Information and graphics accessed electronically must also be cited, giving credit to the sources. This material includes but is not limited to e-mail (don't cite or forward someone else's e-mail without permission), newsgroup material, information from Web sites, including graphics. Even if you give credit, you must get permission from the original source to put any graphic that you did not create on your web page. Shareware graphics are not free. Freeware clipart is available for you to freely use. If the material does not say "free," assume it is not. Putting someone else's Internet material on your web page is stealing intellectual property. Review the Honor Code here.
Individuals with Disabilities	Students with documented disabilities should contact the Office of Disability Services (703) 993-2474) to learn more about accommodations that may be available to them. *(From the 2019-2020 Catalog – catalog.gmu.edu)*
Academic Integrity and Inclusivity	This course embodies the perspective that we all have differing perspectives and ideas and we each deserve the opportunity to share our thoughts. Therefore, we will conduct our discussions with respect for those differences. That means, we each have the freedom to express our ideas, but we should also do so keeping in mind that our colleagues deserve to hear differing thoughts in a respectful manner, i.e. we may disagree without being disagreeable. http://oai.gmu.edu/
Student Privacy Policy	George Mason University strives to fully comply with FERPA by protecting the privacy of student records and judiciously evaluating requests for release of information from those records. Please see George Mason University's student privacy policy https://registrar.gmu.edu/students/privacy/
E-Mail Policy	When corresponding with your instructors, please be professional. Address your professor as Dr. Smith or Professor Smith. Next, state your question or comment. Sign your full name and even better if, add a signature describing yourself (e.g. Junior, Environmental Science and Policy..). Emails are typically answered within 24 hours during the week, M – F from 9-5pm. Mason uses electronic mail to provide official information to students. Examples include notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback and job/internship leads. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly.
Course Grading & Evaluation	Grades will be assigned as follows: A = 92% and above; B = 82% and above; C = 72% and above; D = 62% and above. **Late work is penalized 10% each day it is late.** **Please let instructors know if you are ill or quarantined.**
Discussions– (70 points)	There will be seven discussion board synthesis posts each worth 10 pts.

Assignments – (40 points)	You will complete four (4) assignments that are 10 points each. Four 10 point assignment on Heat Islands, Environmental Consulting, Community Ecology, Energy Sectors and will be submitted. You will submit one resume for 5 pts and receive and outrageous amount of help making it great.
Life Cycle Analysis Presentation (110 points)	To gain a broad understanding of global environmental impacts from products, each student will research and present to class, a product life-cycle analysis, which describes environmental impacts associated with all the stages of a specific product's life (i.e., from raw material extraction through materials processing, manufacture, distribution, use, repair, maintenance, and disposal or recycling). Research will be conducted outside of class. Each presentation has an 8-10 minute limit. The uploaded draft presentation is worth 10 pts. Final Presentation is 100pts
IMRAD Article Reviews (75 points)	You will complete three (3) IMRAD 25pts assignments. Students will work in groups (or individually) to fully analyze relevant research papers initially during in class and/or out of class time.
Exams – Exam 1 (100 points) Exam 2 (100 points Final Exam (100 points)	Students will take two mid-term exams and a cumulative final based on a synthesis of readings, lecture and discussion material. Exams are short answer/ essay format, with a mix of multiple choice and matching. Questions allow students to demonstrate their synthesis of course concepts. Students will contribute content to the final exam from their individual LCA projects.
Laboratory (184 points)	Your lab activities are well integrated into the full course and include thinking critically about the scientific method, research, collecting and analyzing your own data as well as applying your results to new situations. Equipment and supplies will be picked up prior to classes starting. Students are expected to fully participate in lab activities remotely. Lab manual and learning objectives are located in your lab course Blackboard site.
Unlimited Extra Credit:	Occasionally points will be allocated for in-class activities. These points can only be earned by students present in class. Additional extra credit points may be earned by attending and reporting (including photos) on related seminars and outreach activities (e.g. stream clean-ups, conferences, deer check stations, etc.) and online trainings. Submit extra credit via the "Extra Credit" tab on blackboard.
Student Support Services	Please check: https://stearnscenter.gmu.edu/knowledge-center/knowing-mason-students/student-support-resources-on-campus/

Point Totals	
Exam Total Points	**300**
Exam 1	100
Exam 2	100
Final Exam	100
Life-cycle analysis presentation (LCA) Total Points	**110**
Life Cycle Analysis draft presentation	10
Life-cycle analysis presentation (LCA)	100
IMRAD Total Points	**75**
IMRAD #1	25
IMRAD #2	25
IMRAD #3	25
Lesson Assignments Total Points	**40**
Urban Heat Islands Assignment	10
Environmental Consulting Assignment	10
Energy Sectors Assignment	10
Community Ecology Assignment	10
Upload your resume	5
Lobster Migration Assignment (optional)	10
Discussion Board Synthesis Posts Total Points	**70**
Introduce yourself	10
LCA Prep	10
Stream Ecology	10
Bay 101 Water Quality Impacts	10
Bay Organism Life Cycle	10
Regenerative Ag	10
LCA product disposal	10
Unlimited extra credit	
Lecture Total	**600**
Lab Total	**184**
Course Total	**784**

Lab Assignments	Points
Identify a stream (bonus)	5
Measuring Heat Island Impacts	12
Chesapeake Bay Pollutions of Concern Discussion Board	5
Chesapeake Bay Pollutions of Concern	12
Solid Waste Management	12
Energy Savings Proposal Plan	12
Agent Based Modeling for Ecology	12
Stream Bioassessment Introduction Draft	5
Improved Hypothesis & Research	5
Stream Bioassessment data sheets (bonus)	5
Stream Bioassessment Results/Discussion Draft	5
Stream Bioassessment report	80
Insect Biodiversity in Public Locations	12
Honeybee Hive Investigation	12
Lab Total	**184**
Lab Total possible with bonus	194

Expect to work a minimum of three hours per week outside of class per credit hour on assignments for this course. That means, 7- 12 hours per week.

Unless otherwise stated, all assignments are due by the end of the week in which they are assigned. For the purposes of this course, a week is defined as **beginning at 12:01 am each Monday EST**, and **ending at 11:59 pm on the following Sunday EST.**

To help you manage your schedule and time to complete the assignments in this course, please follow the recommended timeline below. If you have a question or concern or encounter a problem about an assignment, please contact me immediately so we can discuss and work out a resolution.

Weeks	Lessons	Assignments
Week 1	**Lesson 1:** Course Intro; Heat Island Impacts	• Review Lesson 1 learning materials • Introduce yourself in the Lesson 1 discussion • Submit the Lesson 1 Heat Island Impact assignment.

Week 2	**Lesson 2:** IMRAD Dissection Urban Wildlife	• Review Lesson 2 learning materials • Submit the IMRAD #1 and IMRAD #2.
Week 3	**Lesson 3:** Life Cycle Analysis, Solid Waste Management Basics	• Review Lesson 3 learning materials • Select your unique LCA product • Share your analysis of the sustainability efforts of the product manufacturer in the Lesson 3 discussion, and comment on 3 posts
Week 4	**Lesson 4:** Energy Sources and Sectors Energy Sources and sectors assignment	• Review Lesson 4 learning materials • Submit the Understanding US Energy Assignment • Diligently continue researching your LCA project
Week 5	**Lesson 5:** Environmental Policy and Environmental Consulting	• Review Lesson 5 learning materials • Submit the Assignment: Environmental Consulting Case Study
Week 6	**Lesson 6:** Freshwater Biomes and Chesapeake Bay TMDL	• Review Lesson 6 learning materials Participate in Chesapeake Bay TMDL Discussion Board
Week 7	**Lesson 7:** Aquatic Ecology Research with Reference Librarian, She will help you learn how to find and use references for your stream bioassessment and LCA. Global Water Cycle	• Review Lesson 7 learning materials • Science Librarian Kimberly Hoffman will hold a **synchronous** lecture on **Wed March 10**. • Participate in the Stream Order Discussion Board • Review Lecture Stream Bioassessment using Macroinvertebrates
Week 8	**Lesson 8:** Exam 1 and Wetlands, Marine, and Estuarine Biomes	• Exam 1 • Review Lesson 8 learning materials • Participate in the Marine and Estuarine Biomes Discussion Board

Week 9	**Lesson 9:** Regenerative Agriculture and Landscape Community Ecology pt. 1	• Review Lesson 9 learning materials • Participate in Regenerative Ag Discussion Board
Week 10	**Lesson 10:** Landscape Community Ecology pt 2 and Global Community Ecology Review resume guidelines	• Review Lesson 10 learning materials • Complete the Community Ecology Assignment • Upload your resume
Week 11	**Lesson 11:** Exam 2 and Plant Defenses- Pollinators	• Review Lesson 11 learning materials • Submit the IMRAD #3 • Complete Exam 2
Week 12	**Lesson 12:** Ecology of Climate Change part 1 and 2	• Review Lesson 12 learning materials • Bonus: Lobster Assignment • Upload your Draft LCA presentation, regardless of how polished it is (yes free points), for us to discuss and collaboratively enhance.
Week 13	**Lesson 13:** Individual Student meetings LCA	• Review Lesson 13 learning materials • Prepare LCA materials to be ready to attend a 10 min individual meeting with your instructor • Submit your final LCA Project
Week 14	**Lesson 14:** Review all peer LCA projects	• View all of the Life Cycle Analysis presentations and give feedback
Week 15	**Final Exam**	• Complete the Final Exam