GEMS 102 - Research Topic Exploration and Team Formation
Spring 2021
Thursdays 5:00-7:00 pm through March 26, 2021
Virtual

Instructor:
Dr. David J. Lovell
Director, Gemstone Honors Program
Professor, Department of Civil and Environmental Engineering
lovell@umd.edu

Course Description:
GEMS102 is a one-credit course designed to help Gemstone first-year students generate and select research topics. Students will explore research topic ideas that address issues with some societal significance. The goal of the course is for students to form teams around topics of mutual interest and to prepare themselves to begin team research in their sophomore year.

Course Expectations:
● Students will come to class prepared for active participation. Class participation is essential and expected.
● The project selection process involves three rounds of student voting. Students are expected to participate in all three rounds of voting. Skipping voting significantly decreases students’ chances of being placed on their top choice team. Please know that no student is guaranteed their most exciting choice when the teams are formed, including project sheet authors.
● Students, the instructor, and teaching assistants are expected to listen to others’ ideas and to share their own opinions, values, and ideas while treating others with respect.
● Students are expected to approach assignments with thoughtful consideration and to be thorough in their completion. They are also expected to retain the course syllabus and to refer to it as needed.
● Students can expect the instructor and teaching assistants to come prepared. The instructor and teaching assistants will be willing listeners with regard to students’ concerns.

Notes:
● Gemstone Team Formation TAs are upper-class Gemstone students who have been where you are now. They are available to help with any issue that may arise during the semester and in particular with this course. Take advantage of them! Please know that students are responsible for keeping their teaching
assistants informed of their interest in and involvement with a potential Gemstone team.

- We will employ Canvas as an organizational tool for this course. You may locate the website at: [http://myelms.umd.edu/](http://myelms.umd.edu/).
- Students should review the Gemstone website ([www.gemstone.umd.edu](http://www.gemstone.umd.edu)) for information regarding current and former teams in order to learn more about the team process and to ensure that research projects are not repeated.

**Maryland Honor Pledge:**

Academic dishonesty is a serious offense, which will not be tolerated in this class and may result in suspension or expulsion from the Gemstone Honors Program, the Honors College, as well as the University. The University has a nationally recognized Honor Code, administered by the Student Honor Council. Unless you are specifically advised to the contrary, the Pledge statement **MUST be typed and signed on the front cover of all assignments submitted for evaluation in this course.** For group projects, **only one pledge needs to be written on the front cover, although all members must sign the document.** The University of Maryland Honor Pledge reads:

“I (we) pledge on my (our) honor that I (we) have not given or received any unauthorized assistance on this assignment/examination.”

More information on the honor pledge can be found at: [https://www.studentconduct.umd.edu/honor-pledge](https://www.studentconduct.umd.edu/honor-pledge)

**Spiritual/Religious and/or Cultural Observances:**

The University System policy on religious observances provides that students should *not be penalized because of observances of their religious beliefs; students shall be given an opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed due to individual participation in religious observances* (for more information on this policy, see: [https://www.ugst.umd.edu/courserelatedpolicies.html](https://www.ugst.umd.edu/courserelatedpolicies.html)). Some class times might be in close proximity or concurrent with religious or cultural observances. We will make every attempt to avoid any conflicts. However, if a class date or assignment does create a conflict, please let the instructors know **in advance and in writing** so they can make appropriate arrangements. Again, the policy states how far in advance is required.

**Pronouns**

The Gemstone Honors Program values equity, inclusion, and diversity as central tenets of our mission as an Honors Living-Learning Program. Further these values are central to who we are as educators and learners in our community and on campus. Similarly, the University of Maryland Non-Discrimination Policy and Procedures emphasize inclusion. You are strongly encouraged to familiarize yourself further with this policy:
In addition, class rosters and University data systems are provided to instructors with students’ legal names and gender identifications. However, knowing that not all students use their legal names or sex/gender assigned at birth, we are happy to use the name and/or pronouns you use. If these change at any point during the semester, please let us know.

You are also encouraged to use the ELMS-Canvas tool to list your pronouns and use the name coach tool. This will update your profile for all of your ELMS-Canvas courses and organizations. To do this, follow these steps:

- Sign in to myelms.umd.edu
- Update pronouns at: Account --> Settings --> Edit Settings --> Pronouns
- To update name pronunciation: Account --> Namecoach

**Accessibility and accommodations:**
In both compliance with and in the spirit of the Americans with Disability Act (ADA), we would like to work with you if you have a disability, documented or otherwise, that is relevant to your work in this course. If you have a need for accommodations in this course, please contact the Accessibility and Disability Service on campus. They will work with you and your instructors as soon as possible to discuss ways to maximize your learning experience. More information on academic accommodations for students with disabilities can be found at: [https://www.counseling.umd.edu/ads/start/eligibility/](https://www.counseling.umd.edu/ads/start/eligibility/).

**Course Evaluation:**
Your participation in the evaluation of courses through CourseEvalUM is a responsibility you hold as a student member of our academic community. Your feedback is confidential and important to the improvement of teaching and learning at the University as well as to the tenure and promotion process. CourseEvalUM will be open for you to complete your evaluations for your courses at the end of the semester.

**Absence, Participation, and Late Assignment Policy:**
Consistent attendance, participation, and preparation is expected, as GEMS202 is a discussion based class. If you are absent due to health-related concerns, please provide your instructor with a self-signed note documenting the absence. We expect that you will abide by the honor code and attend class unless there are mitigating circumstances (such as a health or personal emergency). Given the context of our virtual semester, consistent and thorough communication with your instructor and TAs is expected and encouraged. Absences due to religious holidays or varsity sporting events
must be excused with advance prior notice in writing. Absences for other reasons will generally not be excused (sorority/fraternity activities, club sports, or other extra-curricular activities). Students must discuss academic scheduling conflicts with the instructor. Communication is more important than ever! Along those lines, assignment due dates are minimally flexible. Anything submitted more than 48 hours after the deadline will result in a 10% deduction for every day late. Extensions will be granted without penalty as long as they are discussed with the instructor.

For a full list of course related policies for all undergraduate courses, please visit: http://www.ugst.umd.edu/courserelatedpolicies.html

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Team Assignment/Voting Process
Gemstone teams are determined through a series of votes by the students in GEMS102. For the first two votes, students will vote via an online form by ranking their top research project ideas.

- Project sheets must be submitted online by Monday, February 22 at 9:00am ET. The form is available online at https://ter.ps/gemsPS2021.
- The first vote will take place online beginning Friday, February 26 and electronic voting will close at 11:59 pm on Monday, March 1. You will receive a unique link to the voting form via email.
- The second vote will take place online beginning Friday, March 5 and electronic voting will close at 11:59 pm on Monday, March 8. You will receive a unique link to the voting form via email.
- Note that you will receive a confirmation email after you voted. It is your responsibility to save that email to prove that you voted in case there are discrepancies later on. If students do not have proof that they voted, and our system does not have a record of your vote, it will be counted as a “NO VOTE” and the student may be penalized on team formation night.
- The third and final vote will take place on Thursday, March 25. Immediately following class the instructors and teaching assistants will meet to assign teams. Students who are not present to vote on March 25 will be randomly assigned to a team or may contact the instructors in advance to request a proxy vote.
- Active participation throughout the semester in both GEMS102 and GEMS104 will be taken into account during the team formation process. No one is guaranteed a spot on a team, regardless of project sheet author status.
- If you have questions on the team formation process, ask the Gemstone staff or your TA. Note that the process was revised in 2015, again in 2018, and again in 2020, so students who participated in team formation prior to 2020 may have had a different experience. When in doubt, ask!
**Assignments and Grading**

**Total Points**

**Participation (individual grade)**
160
Active participation is central to the success of forming Gemstone teams. Twenty points will be earned for participation each week. Points will be deducted for arriving late, leaving early, or for inappropriate behavior. No points will be awarded for unexcused absences. You are required to contact the instructors in advance and in writing of absences to determine if your absence is considered excused.

**Reflective Responses (individual grade)**
150
Students should submit their reflective response by 5:00pm on each assigned Thursday (see weekly breakdown below). Each reflection is worth up to 50 points, and there are 3 total reflections. Reflective Responses should be at least 250 words in length. Reflective Responses help TAs learn about team preferences and aid in the team formation process. Reflective Responses are submitted via Canvas.

**Project Sheet OR Faculty Proposed Project Critique (individual grade)**
90
For this assignment, you will complete ONE of the following options below:
- **Option 1:** Submit an actual project idea (and serve as a project sheet author). Write and submit a project sheet via online form at [https://ter.ps/gemsPS2021](https://ter.ps/gemsPS2021).
- **Option 2:** If you are not submitting a project sheet, choose a faculty proposed project (list of all faculty proposed projects are on Canvas) and write a reflective critique of this research idea. Consider all elements of the project sheet and topics discussed in both Gems 102 and Gems 104 so far. This includes but is not limited to: how the research “does good,” potential feasibility issues, ethical considerations, methodologies, etc. Submission due via Canvas. This critique should be approximately two pages double-spaced.

This assignment (either Option 1 or 2) is due Monday, February 22 at 9:00am ET.

**Team Shadowing Assignment (individual grade)**
100
To learn more about the Gemstone experience, you will shadow an upper class Gemstone team. It is preferred that you shadow a junior team. You will contact a team and attend one of the team’s meetings. Teams meet twice weekly, once with their mentor and once on their own, so it should not be difficult to find a meeting that you can attend. It is your decision as to whether you attend the meeting with the mentor. Following your shadowing experience, you will write a one-page, double-spaced reflection summarizing important information about the team, the project, and the meeting. This assignment will be due before class on Thursday, March 25 via Canvas.
Total Points Possible During the Semester  =  500

Grades will be distributed based on the percentage of points earned and total points in the following grading scheme:

A+ = 97.5% and higher  
A  = 92.5% to 97.4%  
A- = 89.5% to 92.4%  
B+ = 86.5% to 89.4%  
B  = 82.5% to 86.4%  
B- = 79.5% to 82.4%  
C+ = 76.5% to 79.4%  
C  = 72.5% to 76.4%  
C- = 69.5% to 72.4%  
D  = 59.5% to 69.4%  
F  = 0% to 59.4%

Schedule of Topics and Assignments by Due Date:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
</tr>
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<tbody>
<tr>
<td>Week 1</td>
<td>Introductions and Overview of Team Formation Process; Idea Exploration and Discussion</td>
<td>Review Syllabus</td>
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<tr>
<td>January 28</td>
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<tr>
<td>Week 2</td>
<td>Idea Exploration and Discussion and Faculty Proposed Project Networking</td>
<td>Reflective Response 1 Due: Your Research Ideas and Who You Are</td>
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<tr>
<td>February 4</td>
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<tr>
<td>Week 3</td>
<td>Idea Exploration and Discussion and Faculty Proposed Project Networking</td>
<td></td>
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<tr>
<td>February 11</td>
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<tr>
<td>Week 4</td>
<td>Project Sheet Workshop</td>
<td>PROJECT SHEETS DUE via the online form by 9:00am ET on Monday, February 22. After this point, <strong>no new topics will be allowed.</strong></td>
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<tr>
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<td>Monday, February 22 by 9:00am ET</td>
<td>PROJECT SHEETS DUE via the online form <a href="https://ter.ps/gemsPS2021">https://ter.ps/gemsPS2021</a> OR Faculty Proposed Project Critique Due</td>
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</table>
| Week 5 | Project sheet Q&A | Reflective Response 2 Due: Projects that Appeal to You  
Review posted project sheet submissions and review online advertisement. Prepare questions for project sheet authors.  
**First Vote**  
Students must vote via online form (will be sent via email) by ranking their top 5 topics before 11:59pm ET on Monday, March 1 |
|        | Monday, March 1st by 11:59pm | First Vote  
Students must vote via the voting form by ranking their top 4 topics before 11:59pm ET on Monday, March 1 |
| Week 6 | Topic Speed Networking | Reflective Response 3 Due: Ranking Research Projects  
**Second Vote**  
Students must vote via online form (will be sent via email) by ranking their top 4 topics before 11:59pm ET on Monday, March 8 |
|        | Monday, March 8th by 11:59pm | Second Vote  
Students must vote via the voting form by ranking their top 4 topics before 11:59pm ET on Monday, March 8 |
| Week 7 | Final Topic Speed Networking |                                                                                                           |
| Week 8 March 25 | Team Formation (Final Vote), Wrap-up, and Next Steps | Team Shadowing Reflection Due Final Vote in Class You *must* be present to vote or you will be randomly placed on a team. This evening, the Gemstone staff and the Gemstone Team Formation TAs will sort through ballots and assign teams. The new teams will be announced prior to the next GEMS104 class. Team assignments and topics are final. |
GEMS Team Formation TAs Spring 2021

Discussion Sections will be co-facilitated by TAs for 75 minutes:
Weeks 1-8 (January 25-March 26): Various times

<table>
<thead>
<tr>
<th>Section</th>
<th>Day/Time</th>
<th>102/104 Discussion Section Link</th>
<th>TA</th>
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<td>Sindhu Murugan Cooper Grill</td>
<td><a href="mailto:smurugan@terpmail.umd.edu">smurugan@terpmail.umd.edu</a> <a href="mailto:coopergrill@gmail.com">coopergrill@gmail.com</a></td>
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<td>Michelle Chen Ethan Green</td>
<td><a href="mailto:chenmichelleh@gmail.com">chenmichelleh@gmail.com</a> <a href="mailto:egreen1@umd.edu">egreen1@umd.edu</a></td>
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<td>Danika Lee Lauren Cho</td>
<td><a href="mailto:slee3034@terpmail.umd.edu">slee3034@terpmail.umd.edu</a> <a href="mailto:Lcho418@terpmail.umd.edu">Lcho418@terpmail.umd.edu</a></td>
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<td>Christina Barrett Aarushi Malhotra</td>
<td><a href="mailto:tinabarrett37@gmail.com">tinabarrett37@gmail.com</a> <a href="mailto:amalhot2@umd.edu">amalhot2@umd.edu</a></td>
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<td>Jon Brodsky Rithik Sebastian</td>
<td><a href="mailto:jrbrodksky58@gmail.com">jrbrodksky58@gmail.com</a> <a href="mailto:rthiksebastian@gmail.com">rthiksebastian@gmail.com</a></td>
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<td>Ria Sebastian Aashka Patel</td>
<td><a href="mailto:rsebast3@terpmail.umd.edu">rsebast3@terpmail.umd.edu</a> <a href="mailto:aashkap002@gmail.com">aashkap002@gmail.com</a></td>
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<td>Matt Hamers Deepika Tripu</td>
<td><a href="mailto:mhhamers@yahoo.com">mhhamers@yahoo.com</a> <a href="mailto:dtripu@terpmail.umd.edu">dtripu@terpmail.umd.edu</a></td>
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<td>Mina Senthil Jack Mirenzi</td>
<td><a href="mailto:kminasenthil@gmail.com">kminasenthil@gmail.com</a> <a href="mailto:jmirenzi@umd.edu">jmirenzi@umd.edu</a></td>
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<td>William Mah Catherina Samson</td>
<td><a href="mailto:wmah5837@umd.edu">wmah5837@umd.edu</a> <a href="mailto:csamson@terpmail.umd.edu">csamson@terpmail.umd.edu</a></td>
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<td>Moshe Ackman Medha Tumkur</td>
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<td>Alisa Forsberg John Yang</td>
<td><a href="mailto:alisaforsberg@gmail.com">alisaforsberg@gmail.com</a> <a href="mailto:john.r.yang13@gmail.com">john.r.yang13@gmail.com</a></td>
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<td>Aaron Green Khadija Shah</td>
<td><a href="mailto:agreen991@gmail.com">agreen991@gmail.com</a> <a href="mailto:kshah786@terpmail.umd.edu">kshah786@terpmail.umd.edu</a></td>
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<td>Alexys Still Vicky Carter</td>
<td><a href="mailto:lexystill2000@gmail.com">lexystill2000@gmail.com</a> <a href="mailto:Vicky7t12@gmail.com">Vicky7t12@gmail.com</a></td>
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