



## GEMS 102 RESEARCH TOPIC EXPLORATION SPRING 2016

Thursdays 5:00-6:00 pm Glenn L. Martin Hall, Engineering Building, Room 1202

**Instructor: Dr. Kristan Skendall**  
Associate Director, Gemstone Program  
0100H Ellicott Hall

(301) 314-7449 (office)  
[kskendal@umd.edu](mailto:kskendal@umd.edu)

**Office Hours:** Fridays 3-4:30pm or by appointment

### SECTION LEADERS' CONTACT INFORMATION

NAME	EMAIL
Sumon Bhattacharyya (MTH 0401)	bsumon18@gmail.com
Annelise Buck	abuck1347@gmail.com
Allison Chen (MTH 0403)	alchen@terpmail.umd.edu
Parmida Enkeshafi (EGR1202)	arpara_e3@yahoo.com
Brian Frey (MTH B0423)	bpfrey11@gmail.com
Zeke Gonzalez (MTH EGR1202)	zekegonza@gmail.com
Ilana Green (MTH B0421)	ilanag94@gmail.com
Nathaniel Kruder (MTH 0402)	nrkruder@gmail.com

NAME	EMAIL
Caroline McCue (MTH B0425)	cmccue@terpmail.umd.edu
Mary Robichaux (MTH B0429)	mrobichaux@bellsouth.net
Yasas Santharam (MTH 0405)	ysanth@terpmail.umd.edu
Jill Smith (MTH 0407)	jsmith73@umd.edu
Jay Swayambunathan (MTH 0402)	jsway96@gmail.com
Jackie Taylor (MTH B0431)	jaclyntaylor115@gmail.com
Tommy Tran (MTH B0427)	ttran612@gmail.com
Melanie Zheng (MTH 0411)	zheng.melanie@gmail.com

### **Course Description:**

GEMS102 is a one-credit course designed to help Gemstone freshmen generate and select research topics. Students will explore research topic ideas that address issues with some social 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.
- Students are expected to participate in all three rounds of voting. Skipping voting significantly decreases students' chances of being placed on their first-choice team. Please know that *no student* is guaranteed their first choice when the teams are formed, even project sheet authors.
- Students, the instructor, and section leaders 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 section leaders to come prepared. The instructor and section leaders will be willing listeners with regard to students' concerns.

### **Notes:**

- GEMS102 section leaders 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 section leaders 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://elms.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 handwritten or 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: <http://shc.umd.edu/>

### **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 full policy, see: <http://www.president.umd.edu/policies/iii510a.html>). Some class times are 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 instructor know **in advance** so she can make appropriate arrangements.

### **ADA Statement:**

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 that is relevant to your work in this course. If you have a documented disability, you should contact the instructor as soon as possible to discuss academic accommodations. More information on academic accommodations for students with disabilities can be found at: <http://counseling.umd.edu/DSS/registration.php>.

### **Absence, Tardiness, and Late Assignment Policy:**

Students who need to be absent from class need to notify the instructor IN ADVANCE to ask for an approved excused absence. Absences will only be excused for the following reasons: health-related issues (see the university policy below), officially representing the university at an event (must have a note from the authorizing official), religious observances, or family emergency or death. Students who are unexcused from class on the day of a “major scheduled grading event” will not be allowed to make up the assignment and will receive a zero for the missed assignment. Please note that exams in other courses that conflict with GEMS102 class time do not constitute an excused absence or leaving early from GEMS102. University policy states that instructors who offer exams during non-class time are required to offer make up exams for students who have other classes during an exam period.

Any student who wishes to be excused for an absence from a single lecture, recitation, or lab that is not a “major scheduled grading event” because of illness shall:

- a. Make a reasonable attempt to inform the instructor of his/her illness prior to the class; and,
- b. Upon returning to class, present their instructor with a self-signed note attesting to the date of

their illness. Each note must also contain an acknowledgment by the student that the information provided is true and correct. Providing false information to University officials is prohibited under Part 9 (h) of the Code of Student Conduct (V-1.00(B) UNIVERSITY OF MARYLAND CODE OF STUDENT CONDUCT) and may result in disciplinary action.

Students who experience more than one absence because of illness or experience illness during a "major scheduled grading event" are required to provide written documentation of the illness from the Health Center or from an outside health care provider. In cases where written verification is provided, the Health Center or outside health care provider shall verify dates of treatment and indicate the time frame that the student was unable to meet academic responsibilities. No diagnostic information shall be given.

Individual participation points are awarded during each class meeting, and students who are tardy or leave early will lose participation points.

There will be a 10% reduction in points for every day an assignment is late. Assignments will not be accepted after one week past the due date.

### **Team Assignment/Voting Process**

Gemstone teams are determined through a series of votes by the students in GEMS 102. Students will vote via an online form by ranking their top research project ideas.

- Project sheets must be submitted online by **Sunday, February 21<sup>st</sup> at 11:59pm ET**. The form is available online at <http://go.umd.edu/gems102ps16>. Some authors will be asked to revise and resubmit their project sheet for further consideration. Updated project sheets will be due by Sunday, February 28<sup>th</sup> at 11:59pm ET.
- The first vote will take place after class on Thursday, March 3<sup>rd</sup> and electronic voting will close at **11:59 pm on Monday, March 7<sup>th</sup>**.
- The second vote will take place after class on Thursday, March 31<sup>st</sup> and electronic voting will close at **11:59 pm on Monday, April 4<sup>th</sup>**.
- Note that you will receive a confirmation email after you voted. **It's 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 **in class on Thursday, April 7<sup>th</sup>**. Immediately following class the instructors and SLs will meet to assign teams. Students who are not present to vote on April 7<sup>th</sup> will be randomly assigned to a team or may contact the instructor 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 Dr. Skendall or your GEMS102 Section Leader. Note that the process was revised in 2015, so students who participated in team formation prior to that year may have had a different experience. When in doubt, ask!

### **Project Sheet Vetting**

By **March 25<sup>th</sup>**, project sheet authors are expected to have their ideas vetted by an expert in the research field and will be required to turn in part II of the project sheet using the electronic submission form (<http://go.umd.edu/gems102ps16vet>). **When vetting your project idea, DO NOT rely only on email. You MUST follow up with direct contact by phone or in person with the person you are asking to vet your idea. If you have any difficulty finding someone, contact Dr. Skendall early in the process. Saying that the person you contacted did not respond is not an acceptable excuse for not getting your project sheet vetted. It is your responsibility to find a suitable person with expertise who will respond and vet your idea. Project sheets that are not vetted by this point will not be eligible for the next vote.**

**Assignments and Grading**

**Total Points**

**Participation** (*individual grade*)

280

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 Dr. Skendall **in advance** of absences to determine if your absence is considered excused.

**Reflective Responses** (*individual grade*)

90

Students should submit their reflective response by 3:30 pm on each assigned Thursday. Each reflection is worth up to 15 points. Reflective Responses should be at least 250 words in length. Reflective Responses help Section Leaders learn about team preferences and aid in the team formation process.

**Team Thesis Conference Write-Ups** (*individual grade*)

60

Each GEMS 102 section will be assigned to attend two of the senior team presentations at the Team Thesis Conference on **Friday, April 15<sup>th</sup>**. You will then submit a 2-page, double-spaced paper for each of the presentations and hand in these papers to your assigned section leader by **April 28<sup>th</sup>**. Each write-up is worth 30 points. The instructor will provide paper prompts via Canvas.

**Team Research Problem and Question Assignment** (*team grade*)

30

This assignment will be completed in class on **April 21<sup>st</sup>** and will be a team grade.

**Summary of Resources Assignment** (*20 pts individual grade and 20 pts team grade*) 40

Each team member will write a summary for one **academic** resource, and share and discuss this source with the team in class on **May 5<sup>th</sup>**. Team members should not duplicate sources and the instructors will provide prompts for this assignment via Canvas. The summary of resources is worth 20 points and you will receive the additional 20 points for presenting the summary during class.

**Total Points Possible During the Semester = 500**

488-500	=	A+	383-397	=	C+
463-487	=	A	362-382	=	C
448-462	=	A-	348-361	=	C-
433-447	=	B+	298-347	=	D
413-432	=	B	0-297	=	F
398-412	=	B-			

**Schedule of Topics and Assignments by Due Date:**

Date	Topic	Assignment
<b>Week 1</b> January 28	<b>Introductions and What is Research? Introduction of Faculty-Proposed Projects</b>	Review Syllabus
<b>Week 2</b> February 4	<b>Overview of the Project Sheet and Vetting Process; Sustainable Research; Discussion of Research Topics in Small Groups</b>	<b>Reflective Response 1 Due: Your Research Ideas</b>  Review Faculty-Proposed Projects on Canvas  Throughout the month of February, students who wish to submit project sheets are encouraged to meet with the Gemstone staff and section leaders to discuss their ideas.
<b>Week 3</b> February 11	<b>Networking Around Thematic Research Topics and with Faculty Mentors</b>	<b>Reflective Response 2 Due: Identifying Experts in your Field</b>
<b>Week 4</b> February 18	<b>Meet with Potential Project Sheet Authors</b>	<b>PROJECT SHEETS DUE</b> via the online form by 11:59pm EST on Sunday, February 21 <sup>st</sup> . Authors will be notified by Wednesday, February 24 <sup>th</sup> whether their project sheets are accepted on the first try or they will be asked to revise and resubmit. The Gemstone staff will be available to help students with revisions. The first round of accepted project sheets will be posted by Wednesday, February 24 <sup>th</sup> . After this point, <b>no new topics will be allowed.</b>
<b>Week 5</b> February 25	<b>Project videos and class discussion with authors</b>	Review posted project sheet submissions and watch online videos. Prepare questions for project sheet authors.
<b>Week 6</b> March 3	<b>Project videos and class discussion with authors</b>	Review posted project sheet submissions and watch online videos. Prepare questions for project sheet authors.  <b>First Vote</b> Students must vote via the online form by ranking their top 5 topics before <b>11:59pm ET on Monday, March 7<sup>th</sup></b>
<b>Week 7</b> March 10	<b>Team Speed Networking</b>	<b>Reflective Response 3 Due: Projects that Appeal to You</b>
<b>SPRING BREAK MARCH 12-20</b>		
<b>Week 8</b> March 24	<b>Team Speed Networking</b>	<b>Reflective Response 4 Due: Feasibility of Research Ideas</b>
Friday, March 25 by 12:00pm ET		<b>UPDATED PROJECT SHEETS DUE</b> via the online form. <b>If your project has not been vetted, it will not continue through the process.</b>
<b>Week 9</b> March 31	<b>Project discussion</b>	<b>Reflective Response 5 Due: Ranking Research Projects</b>  <b>Second Vote</b> Students must vote via the voting form by ranking their top 5 topics before <b>11:59pm ET on Monday, April 4<sup>th</sup>.</b>

<p><b>Week 10</b> April 7</p> <p><i>*If you will not be present in class due to an excused absence, talk with Dr. Skendall in advance for voting accommodations.</i></p>	<p><b>Q&amp;A on Final Topics and Final Vote</b></p>	<p><b>Final Vote in Class</b> <b>You <i>must</i> be present to vote or you will be randomly placed on a team.*</b></p> <p>This evening, the Gemstone staff and the GEMS102 and GEMS104 section leaders will sort through ballots and assign teams. The new teams will be announced prior to the next class. <b>Team assignments and topics are final.</b></p>
<p><b>Week 11</b> April 14</p>	<p><b>Team Meeting:</b> Get to know your new team! Team Gemstone part I.</p> <p><b>Class will be extended until 7:30 to allow for extended teambuilding.</b></p>	
<p>April 15</p>		<p><b>Team Thesis Conference</b></p> <p>Friday, April 15– parallel sessions at 1:30 PM, 2:45 PM, 4:00 PM, and 5:15 PM</p> <p>Riggs Alumni Center</p>
<p><b>Week 12</b> April 21</p>	<p><b>Team Meeting:</b> Team Norm/Expectations Setting; Defining the team's problem and question</p>	<p><b>Reflective Response 6 Due: The Team Research Experience</b></p> <p><b>In-class assignment: Team Research Problem and Question</b></p>
<p><b>Week 13</b> April 28</p>	<p><b>Team Meeting:</b> Exploring the team's problem and question through literature</p>	<p><b>Thesis Conference Write-Ups due to your Section Leader</b> (Canvas) Creswell, Research Design Chapter 2 and Chapter 6</p>
<p><b>Week 14</b> May 5</p>	<p><b>Team Meeting:</b> Team Goal Setting, Timeline for Team Success, Planning for Summer, and Working through Conflict</p>	<p><b>Summary of Resources</b> assignment due to your SL.</p> <p><b>In-class assignment: Presenting Summary of Resources and Planning for the Summer</b></p>