

## SP19 Research Program(s) Guide (FURI, MORE, GCSP, KEEN)

### Contact Information: Student Engagement

- Student Engagement is the office that coordinates FURI, MORE, GCSP, Undergraduate Research Travel Grants and other key presenters, including KEEN recipients, for the bi-annual Symposium.
- Email: [furi@asu.edu](mailto:furi@asu.edu)
- Office Location: Tempe-ECF 130, Poly-Picacho 244
- Office Hours: <https://fultonapps.asu.edu/advising> < Student Engagement

### Learning Outcomes

- Enhance your engineering academic experience through hands-on lab experience
- Develop skills in presenting your research to colleagues and the community
- Preparation for career growth and/or graduate school

### Overview of Programs

\* Currently, students in these programs will progress along the same timeline and meet the same deliverables, specifically for the FURI Symposium.

Program	Eligibility
<b>FURI: Fulton Undergraduate Research Initiative*</b> <a href="http://furi.engineering.asu.edu/">furi.engineering.asu.edu/</a>	Students must be an undergraduate student in the Ira A. Fulton Schools of Engineering (2 <sup>nd</sup> semester to senior) and in good academic standing (i.e. not on probation)  Faculty mentors must be faculty members be in the Ira A. Fulton Schools of Engineering and not on sabbatical, leave or vacation during the majority of the funded semester(s).
<b>MORE: Master's Opportunity for Research in Engineering*</b> <a href="http://graduate.engineering.asu.edu/more/">graduate.engineering.asu.edu/more/</a>	Students must be a Master's student in the Ira A. Fulton Schools of Engineering and in good academic standing (i.e. not on probation).  Faculty mentors must be faculty members be in the Ira A. Fulton Schools of Engineering and not on sabbatical, leave or vacation during the majority of the funded semester(s).
<b>GCSP Stipend: Grand Challenge Scholars Program Stipend*</b> <a href="http://gcsp.engineering.asu.edu/research-stipend">gcsp.engineering.asu.edu/research-stipend</a>	You must be a current student in the Grand Challenge Scholars Program and conducting research in your Grand Challenge theme area.
<b>KEEN Awardee*</b> <a href="http://entrepreneurship.engineering.asu.edu/kern-asu-student-funding-opportunities">entrepreneurship.engineering.asu.edu/kern-asu-student-funding-opportunities</a>	Depends on the application you are pursuing.
<b>Undergraduate Research Travel Grant</b>	You must be an undergraduate student in the Ira A. Fulton Schools of Engineering (2 <sup>nd</sup> semester to senior)

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<a href="https://undergraduate-research.engineering.asu.edu/travel-grant-program">undergraduate-research.engineering.asu.edu/travel-grant-program</a>	and in good academic standing (i.e. not on probation) who has been accepted to present your research at a conference.
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### Accessing and Exploring the FURI-MORE-GCSP-KEEN Canvas

All students in these programs must use the Canvas site in order to access program deadlines and deliverables.

1. Login at <https://asu.instructure.com/courses>
2. Click on FURI-MORE: Fulton Undergraduate Research Initiative and Master's Opportunity for Research in Engineering
3. What's on Canvas:
  - Announcement + Information to Read
  - Assignments/Deliverables
  - Spending Your Budget
  - Stipend/HR Information
  - Program Documents
  - Info: FURI/MORE Fellow
  - Research + Leadership Resources

### Student Responsibilities

- |  |  |
|--|--|
| <input type="checkbox"/> Clarify goals and expectations          | <input type="checkbox"/> Respect mentor's time commitments |
| <input type="checkbox"/> Regularly communicate and ask questions | <input type="checkbox"/> Maintain confidentiality          |
| <input type="checkbox"/> Listen to feedback                      | <input type="checkbox"/> Follow safety protocols           |
| <input type="checkbox"/> Be prepared for meetings                |  |

### Faculty Mentor Responsibilities

- |  |  |
|--|--|
| <input type="checkbox"/> Be accessible                           | <input type="checkbox"/> Challenge student           |
| <input type="checkbox"/> Provide necessary training              | <input type="checkbox"/> Listen and provide feedback |
| <input type="checkbox"/> Recognize and encourage accomplishments |  |

### Do this at the Beginning of Each Semester

- |  |  |
|--|--|
| <input type="checkbox"/> Meet with your mentor to plan your work schedule (typically 10 hours per week)  |  |
| <input type="checkbox"/> Plan regular meetings with your mentor and schedule your lab group meetings. Optional topics to discuss with your mentor on an ongoing basis: |  |
- ✓ *Review the semester deliverable timeline. Discuss how you will submit deliverables to them throughout the semester – even when they will be out of the office.*
  - ✓ *Ask for additional information to further your research progress (journals, etc.)*
  - ✓ *Any necessary lab training*
  - ✓ *Specific difficult situations and suggests actions*
  - ✓ *Appropriate behavior in various settings*

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- ✓ Time management
- ✓ Career plans
- Start the process for using your budget (if applicable) earlier in the semester rather than later in the semester for optimum progress and reduced stress
- Contact [furi@asu.edu](mailto:furi@asu.edu) if you have questions

### **Spending Your Research Budget**

- You will work with your faculty mentor's school business office to use your budget (i.e. SEMTE, SCIDSE, SSEBE, Poly, ECEE, or SBHSE).
- Your faculty mentor's school business office will contact the appropriate faculty mentors and students regarding their unique processes via email.
- Placing order and reimbursements can take time, so plan carefully.
- Go to the FURI-MORE-GCSP-KEEN Canvas site to find the contact information for your faculty mentor's school business office.

### **Mentor/Project Changes**

- If your faculty mentor has changed, please complete the Change of Mentor Process and Form with your former and current mentors, then submit to [furi@asu.edu](mailto:furi@asu.edu). You can find this form on Canvas under Program Documents.
- If your project has changed significantly, you will need to submit new proposal materials to [furi@asu.edu](mailto:furi@asu.edu).

### **FURI/MORE Stipends: Overview**

- FURI and MORE students will be paid a research stipend of \$1,500 at the end of their funded semester(s). You must submit your required deliverables by their deadlines in order to receive the stipend.
- Taxes will affect your stipend, per federal law
- Note: The FURI/MORE/GCSP positions are 5 hours per week in the ASU HR system, so you are responsible for making sure that you are averaging 25 hours per week with all positions within ASU. International Student Workers are limited to working up to 20 hours each week during the academic year; no averaging of hours over the 2-week pay period.
- You will NOT be posting hours to Peoplesoft for your FURI/MORE/GCSP position.

### **FURI/MORE/GCSP Stipends: HR Paperwork to Complete**

- Student Engagement will contact you with information on when and how to apply for the FURI/MORE/GCSP position via the ASU HR application system. You will need to:
  - Apply for the position via HR using the correct requisition number
  - If you do not currently receive paychecks from ASU, you will need to:
    - ✓ Complete the I-9 paperwork and bring two forms of identification to the appropriate HR office.
    - ✓ Fill out your W-4 on my.asu.edu

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- Decide how you would like to receive your stipend: via direct deposit or paper check. To set-up direct deposit:
  - ✓ Login to My ASU.
  - ✓ Select Finances.
  - ✓ Under the Financing Task section, select the Direct Deposit link.
  - ✓ Follow the link and instructions to set up or review your direct deposit banking information. Remember to select "Save" at the bottom of the screen.

**Program Deliverables: Detailed Information**

**How to get faculty mentor approval on deliverables**

- The student is responsible for submitting mentor approval with their deliverable via the online form as applicable. Faculty mentor approval can be any of the options below:
  - ✓ Email approval, which can be submitted as an image (example: “I approve this summary”)
  - ✓ E-signed PDF
  - ✓ Mentor signs it as a hard copy, student scans and uploads it

**Program Overview Survey**

- *Submit:* Via provided link
- *Goal(s):* Ensure you understand the program and its expectations
- *How to complete it:*
  - ✓ Review the semester program guide
  - ✓ Take the online survey
- *Complete submission:* 5 points
  - ✓ Answer all of the required questions

**Mid-Semester Summary**

- *Submit:* Via provided Canvas assignment
- *Goal(s):* Develop your writing skills and reflect upon your research experience/progress
- *Complete submission:* 10 points
  - ✓ One-page double-spaced that reflects on your research progress or personal growth
  - ✓ Mentor approval is included
  - ✓ May include photos or graphs in addition to the required writing portion
- *Incomplete submission:* 0-5 points, -5 points for each missing component
  - ✓ Did not submit it by the deadline
  - ✓ Did not meet minimum page length requirement
  - ✓ Did not submit faculty mentor approval

**End-of-Semester Summary**

- *Submit:* Via provided Canvas assignment
- *Goal(s):* Develop your writing skills and reflect upon your research experience/progress
- *Complete submission:* 15 points
  - ✓ Two-pages double-spaced that reflects on your research progress or personal growth
  - ✓ Additional page with a budget update – include whether or not the budget was spent, what it was spent on, and how much was spent
  - ✓ Mentor approval is included
  - ✓ May include photos or graphs in addition to the required writing portion
- *Incomplete submission:* 0-10 points, -5 points for each missing component

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- ✓ Did not submit it by the deadline
- ✓ Did not meet minimum page length requirement
- ✓ Did not submit faculty mentor approval
- ✓ Did not clearly include budget update information

### **Abstract**

- *Submit:* Via provided online link
- *Goal(s):* Briefly summarize your research so readers can understand its purpose and impact; it is an advertisement in which your research deserves an audience's attention.
- *Complete submission:* 15 points
  - ✓ Complete responses in abstract form
  - ✓ Between 50-100 words
  - ✓ No personal pronouns (e.g. Write "the research team" or "the researcher." Do not write "I/me/my/we/us").
  - ✓ Clarified what uncommon acronyms or terms are. (e.g. Most people know that TV = television. The general public does not know that NAS = National Aerospace Standards.)
  - ✓ Mentor approval is included
- *Incomplete submission:* 0-10 points, -5 points for each missing component
  - ✓ Did not submit by the deadline
  - ✓ Did not completely answer required questions
  - ✓ Did not meet word limit or confusing content
  - ✓ Did not submit faculty mentor approval
- Suggested abstract outline using the Entrepreneurial Mindset 3 C's
  - ✓ Beginning: describe the research question or motivation (Curiosity)
  - ✓ Middle: describe your research methods and progress (Connecting Knowledge)
  - ✓ End: describe recommended future work (Creating Value)

### **Portrait**

- *Submit:* Attend an Open Studio Session hosted by Fulton Communications. You do not need to submit to Student Engagement.
- *Goal(s):* Professionally represent yourself in the abstract promotional materials
- *How to complete it successfully:*
  - ✓ Check the previous FURI abstract books for an idea of how to dress:  
<https://furi.engineering.asu.edu/furi-symposiums/>
  - ✓ Check Inner Circle for sessions
  - ✓ Attend an Open Studio session hosted by Fulton Communications
  - ✓ Wear professional attire from the elbows up
  - ✓ Make sure your hair and face is tidy
- *Completed:* 5 points
  - ✓ You got your portrait taken by Fulton Communications
- *Incomplete:* 0 points
  - ✓ You didn't get your portrait taken by Fulton Communications

### **Symposium Poster**

- *Submit:* Via provided online link
- *Goal(s):* Professionally present your research at the Symposium
- *Poster facts:*
  - ✓ Student Engagement covers the cost of poster printing.
  - ✓ The poster deadline has been set to meet the printer's needed timeline and to ensure all presenters' materials are ready for symposium.
  - ✓ Got project changes after you submit your poster? You may update Symposium attendees verbally or bring materials to communicate the changes.
  - ✓ You will receive your poster at symposium. You may take your poster after the symposium.
- *Complete submission:* 25 points
  - ✓ Complete responses in online poster form
  - ✓ Used one of the approved PowerPoint templates
  - ✓ Included an estimated 1-inch margin around the edges of the poster so content doesn't bleed off the poster
  - ✓ Provided student name, major, faculty mentor name, and correct Fulton School
  - ✓ No personal pronouns in the poster (e.g. Write "the research team" or "the researcher." Do not write "I/me/my/we/us").
  - ✓ Mentor approval included
- *Incomplete submission:* 0-20 points, -5 points for each missing component
  - ✓ Did not submit by the deadline
  - ✓ Did not completely answer required questions
  - ✓ Did not use one of the approved PowerPoint templates
  - ✓ Did not include an estimated 1-inch margin around the edges
  - ✓ Did not provide student name, major, faculty mentor name, and correct Fulton School
  - ✓ Included personal pronouns in the poster.
  - ✓ Did not submit faculty mentor approval
- Suggested poster structure using the 3 C's of the Entrepreneurial Mindset
  - ✓ Basics: Research title; researcher's name and major; faculty mentor name, title, Fulton school
  - ✓ Motivation or Research Question (Curiosity)
  - ✓ Research Methods (Connecting Knowledge)
  - ✓ Findings and Conclusions (Creating Value)
  - ✓ Clearly labeled figures
  - ✓ Other potential topics:
    - Obstacles
    - Works cited
    - Acknowledgments

### **Professional Development**

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- *Submit:* Via provided Canvas assignment
- *Goal:* Build your professional skills and knowledge through a variety of self-selected and Student Engagement-approved activities.
- *How to complete it successfully:*
  - ✓ Complete and submit at least two professional development activities via the online submission form. Upload activity confirmation documentation, which could include:
    - Notes from your meeting and/or interview
    - The research paper you read (required if you read a research paper)
    - A picture of you at the event
    - Registration/event confirmation
    - Other supporting information
  - ✓ *Suggested professional development opportunities:*
    - Student Engagement events
    - Read a research article
    - Equipment/safety training
    - Faculty mentor meeting
    - Career development events
    - Research seminars/symposiums
    - Faculty/industry workshops
    - Interviewing faculty/industry
    - Lab tour (not your own)
    - Attending an organization's event
    - Check with [furi@asu.edu](mailto:furi@asu.edu) if other events qualify

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- *How to complete it successfully:*
  - ✓ Complete and submit at least two professional development activities via the online submission form. Provide 1-2 thoughtful sentences regarding your experience. Upload activity confirmation documentation.
- *Complete submission:* 5 points per activity
  - ✓ Activity name and date, contact person for activity, (if applicable); or title of research paper read
  - ✓ Type of activity completed
  - ✓ Provide 1-3 complete, thoughtful sentences regarding your key takeaway from the activity
  - ✓ Upload documentation that confirms you participated in the activity.
- *Incomplete submission:* 0-4 points, -1 points for each missing component
  - ✓ Did not submit by the deadline
  - ✓ Did not include activity name and date, contact person for activity, (if applicable); or title of research paper read
  - ✓ Did not provide 1-3 complete, thoughtful sentences regarding your key takeaway from the activity
  - ✓ Did not upload documentation that confirms you participated in the activity.

### **FURI Luncheon and Symposium**

- *Submit:* Show up.
- *Goal:* Present your research and share your findings with peers, your mentor, and the community.
- *Luncheon:*
  - ✓ Optional event for presenters to attend the day-of and prior to the Symposium
  - ✓ Attendees may chat with students, faculty, staff and donors over a catered meal
  - ✓ You must register for the event by the deadline announced
- *Symposium:*
  - ✓ Program participants are **required** to present at the Symposium. If you have conflicts, contact [furi@asu.edu](mailto:furi@asu.edu) by the date provided in the timeline.
  - ✓ Each presenter will present their research orally using their research poster. They may bring additional presentation materials (pending approval from Student Engagement in order to ensure space is available).
  - ✓ Attendees may include students, faculty, staff, industry, family, K-12 and more. The event is open to the public.
  - ✓ Presentations tend to be casual conversations in small one-on-one or groups.
- *Complete:* 50-70 points
  - ✓ Optional: Attended the Luncheon (20 points)
  - ✓ Presented at the Symposium (50 points)
- *Incomplete:* 0 points
  - ✓ Did not present at the Symposium

### **Program evaluation**

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- *Submit*: Via provided online link
- *Goal*: Provide feedback on your experience in FURI/MORE/GCSP/KEEN to further develop and improve the program(s)
- *Complete*: 5 points
  - ✓ Completed the evaluation
- *Incomplete*: 0 points
  - ✓ Did not complete the evaluation

**How to Become a FURI/MORE Fellow**

**Do you want to help promote FURI or MORE?**

- If so, you can become a voluntary FURI/MORE Fellow
- FURI/MORE Fellows help promote the program(s) by
  - ✓ Facilitating program presentations
  - ✓ Tabling on behalf of the program(s)
  - ✓ Helping prospective applicants
- Any student who has participated in or is currently in FURI or MORE can be a fellow
- Time commitment: 2-3 hours total during the semester
- Expectations:
  - ✓ Meet all program deliverables by their deadlines
  - ✓ Assist with 1-3 activities per semester
  - ✓ Represent the program(s) in a professional manner
  - ✓ Submit all three completed activities via the Professional Development activities online form
- To become a Fellow, just respond to the Program Overview Survey stating that you want to be a Fellow

**Perks of Being a FURI /MORE Fellow**

- Get a polo
- Develop public speaking skills, interpersonal interactions and forge new connections
- Inspire others to pursue research
- Stronger Student Engagement professional references
- Once you complete these criteria, you may receive a research padfolio (it's what you use for interviews)
- Have fun!

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### Spring 2019 Program Deliverables: Timeline

*Deadlines are set at 12 p.m. (noon) in order to ensure that all students meet the deadline in a timely manner. Deadlines are provided to you well in advance so you can plan accordingly to meet them. You are welcome to submit materials in advance of their deadlines.*

Date	Deliverable	Faculty Mentor Approval	# Points	Who Must Do This
1/7/19	Spring 2019 Research Program (s) Begins	Not applicable	Not applicable	FURI, GCSP, MORE
1/22/19 by 12 p.m. (noon)	Spring 2019 FURI Students: Apply for FURI position via the HR System: #47603 BR	Not applicable	20	FURI
1/22/19 by 12 p.m. (noon)	Spring MORE Students: Apply for MORE position via the HR System: #47606 BR	Not applicable	20	MORE
1/22/19 by 12 p.m. (noon)	Spring GCSP Students: Apply for GCSP position via the HR System: #47828 BR	Not applicable	20	GCSP
1/23/2019 by 12 p.m. (noon)	2018-19 Research Program(s) Overview Survey due via <a href="#">LINK</a>	Not applicable	5	FURI, MORE, GCSP
1/24/2019	Complete I-9 paperwork by going to the appropriate Office of HR to complete section 1 online, section 2 in person at OHR.	Not applicable	5	FURI, MORE, GCSP
2/27/2019 by 12 p.m. (noon)	Mid-semester summary due via Canvas assignment	Required	10	FURI, GCSP, MORE
2/27/2019 by 12 p.m. (noon)	Abstract due via <a href="#">LINK</a>	Required	15	FURI, GCSP, MORE
4/03/2019 by 12 p.m. (noon)	Symposium poster due via <a href="#">LINK</a>	Required	25	FURI, MORE, GCSP, KEEN
4/2/2019	Notify <a href="mailto:furi@asu.edu">furi@asu.edu</a> if you cannot present at the Symposium	Not applicable	Not applicable	FURI, MORE, GCSP, KEEN
3/20/2019 by end of day	Get your portrait taken by Fulton Communications	Not applicable	5	FURI, MORE, GCSP, KEEN
4/19/2019	OPTIONAL: Attend the FURI Luncheon	Not applicable	20	FURI, MORE, GCSP, KEEN
4/19/2019 between 1-3 p.m., Tempe campus	Present at FURI Symposium	Not applicable	50	FURI, MORE, GCSP, KEEN
4/17/2019 by 12 p.m. (noon)	End-of-semester summary due via Canvas assignment	Required	15	FURI, GCSP, MORE
4/17/2019 by 12 p.m. (noon)	Two professional development activities due (5 points each) via Canvas assignment	Not applicable	10	FURI, GCSP, MORE

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4/24/2019 by 12 p.m. (noon)	FURI-MORE-GCSP program evaluation due via <a href="#"><u>LINK</u></a>	Not applicable	5	FURI, MORE
5/4/2019	Spring 2019 FURI, MORE and GCSP ends	Not applicable	Not applicable	FURI, MORE
5/10/2019	Spring 2019 FURI, MORE and GCSP Estimated Pay Date	Not applicable	Not applicable	FURI, GCSP, MORE
	<b>Total Points Needed to Complete FURI/MORE</b>		<b>105</b>	