

SHINE 2023 Mentor Learning Goals

Worksheet: Identify Learning Goals for the SHINE 2023 Student (5/23/23)

Reverse engineer the culminating poster (which is due 7/21/2023) for the July 28 Poster Session.

What results can your SHINE student show in just 26 days? What skills will s/he/they be able to say s/he/they learned? How will your SHINE student demonstrate his/her/their understanding of university research, from innovations specific to your research group to the peer-reviewed publications that share your own research findings to potential college/career pathways to the social significance of the research conducted by your team?

Drop by Monica's Mentors Office Hours every Thursday from 1-3pm, starting 5/11 at <https://usc.zoom.us/j/96505059734> or email me at monicaill@usc.edu and k12stem1@usc.edu for an appointment.

Mandatory Hybrid Mentor Meetings on Tuesdays (see details) all from 2 - 3 pm in RTH 115 and at <https://usc.zoom.us/j/97571338445>. Forms, calendar (coming), tips and news at viterbik12.usc.edu/shine/mentors.

May	June 1 – 9	June 12 – 23 SHINE starts 6/12 (7/19 holiday)	June 26 – July 7 (7/3 and 7/4 holiday)	July 10 – 14 Poster Due 7/21 Poster Session 7/28	By 8/4
<p>Finish Minor Protection training; return this doc & forms signed; comply with HireRight background check; request M&S if necessary – all by May 24.</p> <p>Start planning your project, weekly skill training & flexible learning goals; plan assessments & weekly skill milestones; select peer-review readings, identify & schedule trainings (e.g., specific software, your own demos, etc.) - the SHINE team will offer introductory, optional MATLAB and Python trainings & can help w/ other needs.. We will provide a way for you to reach out to your SHINE student before June 12 to discuss schedules, communication preferences - please wait for this.</p> <p>Please sign and turn in: THIS DOC, CODE OF CONDUCT, IMAGE RELEASE, AND MINORS TRAINING CERTIFICATE BY 5/24 https://usc.qualtrics.com/jfe/form/SV_6YABHUEN3nozl0G</p> <p>REQUEST M&S TO SEND BY 5/24 https://usc.qualtrics.com/jfe/form/SV_0JuD1HCDZ1GM4D4</p>	<p>Solidify weekly learning goals; tasks & assessments for each week to provide to your SHINE mentee on week of 6/12.</p> <p>Please submit your peer-review article(s) by June 7. Feel Free to add a folder if your PI's folder is missing.</p>	<p>June 12 at (10:30-11:45 AM): meet your SHINE student(s) & perhaps their family for the 1st time, plan safe tour of work space w/ guests.</p> <p>Students start in your workspace 6/14; discuss then the overall but flexible learning goals (weekly & overall) & how you will both know the student is on track. Assess/build basic skills of your student(s) to identify where to focus in 1st 2 weeks. Use these weeks to ensure student understands the social benefits of your group's research; also help student understand peer-reviewed readings you assign, research goals & culture of your team. Provide written doc of schedule/terms by June 7th.</p> <p>By the end of June, the student should easily be able to explain those general research goals & their benefits to society w/o notes -- please be sure to ask them to do so so to help them build this skill. By 6/23, check in with student on the learning goals and assessments you provided in Week 1.</p> <p>Students will read peer-reviewed lit you identify, complete the required MATLAB training on Trojan Learn and attend MATLAB workshop.</p>	<p>SHINE student should be acquiring skills specific to the team's research by now, moving toward mastery of key basic skills you identified back in the doc provided to SHINE student in week 1; adjust your plans now if needed; by 7/8, provide student mid-program assessment on skills acquired to date & where they need to focus to build autonomy & results for poster session; student should present to labmates on their research to develop communication skills and confidence discussing their research.</p>	<p>SHINE student should be mastering basic skills & gaining competence at more advanced skills; the final two weeks focus on preparing the poster by 7/21 (SHINE Team will help, but Mentors work on this w/ their mentees) & honing skills to discuss their research with peers, Mentors, professors, and families in poster session and Certificate Ceremony.</p>	<p>Final letter of student accomplishments approved by your PI due by 8/4.</p>

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Suggested pacing:

Now	Wk 1: 6/12-16	Wk 2: 6/19-23	Wk 3: 6/26-6/30	Wk 4: 7/3-7	Wk 5: 7/10-14	Wk 6: 7/17-21	Wk 7: 7/24-28
Draft learning goals & pacing; Check out past posters .	6/12: Meet mentees at 10:30 am – 11:30 am. Quick tour of their workspace. 6/15-17: Identify what student knows/gaps & identify alternative plans; intro project & its broader impacts; give overview of plans for the 7 weeks.	6/19 HOLIDAY Modify based on wk 1; start on specific project or skills tied to your learning goals; help student navigate peer-rev pubs; start introducing special software (e.g., MATLAB) or techniques; share your own STEM journey & motives	Reinforce & slowly expand student's use of basic skills, software & tools to build toward competence. Introduce new tasks. Use assessment tools & give feedback. Reflect upon yr original learning goals.	7/3-7/4 HOLIDAY Give oral & written feed-back, build beyond basic skills & tasks as mentee gains independence & analytical skills; have mentee present to labmates often to build confidence.	Transition toward obtaining results & elements (data graphs, algorithms, etc.) to build into final Poster; mentee should have marked increase in skill & ability to explain/discuss	Poster due 7/21 Your mentee should be at the peak of ability & understanding in these final 2 weeks. Document yr assessments, give feedback. Focus on finalizing the poster, incorporating peer-rev lit.	Poster Session on July 28! During this last week, finish any ongoing projects; help mentee's ability to discuss research broadly w/ social benefits & to discuss w/ others in subcohort.
All- Cohort Programs run on Fridays 9 am - 12 pm (Lunch is from 12-1 pm) SHINE Student Calendar (coming soon) SHINE Mentor Calendar							
	6/12 (tentative) 9 - 12 pm Orientation; THH 202 10:30-11:30 am meet Mentors; Lab Safety	MATLAB and/or other specialized software training;	Ongoing discussions of production of scholarly knowledge, publications, student orgs, career paths	Ongoing discussions of production of scholarly knowledge, publications, student orgs, career paths	Library Training & College admissions skills (personal statements, pacing); Admissions speaker	Discussion & Poster Session workshops; networking	Preparing for culminating showcase of all learned & accomplished

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Worksheets follow to help build your goals.

Identify the three skills or practices you expect/hope your student to already know from Day 1 – it's a good idea to clarify during the first week *if* your expectations align with the student's experience so you can adjust: *[e.g., a SHINE Mentor in aerospace expected high school students to be proficient in Excel, but realized quickly his SHINE students had little skill with Excel. By identifying this gap early, the mentor engaged the SHINE Team and we set up the student with training in LinkedIn Learning, a free resource for SHINE students. By finding out fast what your SHINE students don't know, you will save time and frustration for you and your SHINE students.]*

- 1.
- 2.
- 3.

Pinpoint the three key skills or practices you plan to teach your student in Weeks 1 – 3 and how you will do that:

- 1.
- 2.
- 3.

What plan do you have for how you will teach these skills and practices and ensure that learning has occurred? How will you know that the SHINE student has mastered these skills or practices? During which weeks will you use which of the assessment tools? *e.g., observation (consider creating a rubric to document), challenge task, quiz, discussion, survey, presentation*

It takes more time to use a formal assessment tool > instinct, but documenting assessment & learning goals in a "Mentee Notebook" (similar to a Lab Notebook) is a good practice and makes it easier to write the two required assessments (due week of 7/4 and 8/5).

Can you summarize the three major learning goals you have for these seven weeks of SHINE? What do you hope your mentee learns and remembers after this time with you as a Mentor?

- 1.
- 2.
- 3.

How do you hope to grow as a mentor? What ways can you benefit through this experience?

Dr. Mills and the SHINE team can help you achieve your goals – please come to Dr. Mills' drop-in office hours on Thursdays from 1 – 3 pm at <https://usc.zoom.us/my/K12STEM> or make an appointment to discuss. Dr. Mills is happy to write letters of recommendation for NSF grants or teaching jobs, so use this help to expand your own skill set.

- 1.
- 2.
- 3.