



Independent Contractor: Research Project Leader Position Description (Virtual)

ABOUT WARRIOR-SCHOLAR PROJECT

Warrior-Scholar Project (WSP) provides intensive, immersive, one and two-week college-preparatory academic boot camps at America's top universities to members currently serving in the military and veterans. These academic boot camps are offered at no cost. During programming, Warrior-Scholars are mentored by highly successful student-veterans who have transitioned from the military to college. Host institution faculty volunteer their time, and curricula are humanities, STEM, or business focused. Through faculty facilitated lectures, study skills workshops, assignments, and tutoring, Warrior-Scholars acquire the skills to succeed in higher education and navigate the cultural shift from active duty military service to academia.

ABOUT THE RESEARCH PROJECT LEADER POSITION

The overarching goal of the WSP STEM program is to help WSP participants of all backgrounds succeed in an undergraduate STEM major. Research project leaders (RPLs) are responsible for exposing WSP participants to skills and methods required for conducting undergraduate research in a STEM field. RPLs are expected to have the expertise necessary to either design or adopt an existing research project, teach the fundamentals of the project topic, advise their research group as they navigate the project, and support the group in developing a short slide presentation. Formal instruction should be kept to a minimum, but it should include the knowledge and skills necessary to complete research objectives. RPLs are independent contractors and are paid \$1,000. Contractors must be legally authorized to work in the United States.

QUALIFICATIONS

Research project leaders should either be enrolled in a Master's or Ph.D. program or have a graduate degree in a STEM field. RPLs should have experience conducting research in a STEM field. Experience as a Teaching Assistant or tutor is preferred. Experience working with ESL and other non-traditional students is desired. Research projects will typically be based in the Python programming language so experience programming in Python is required for these types of projects. RPLs should also be comfortable with Zoom.

LEARNING GOALS

While the core curriculum of the WSP STEM program prepares participants to succeed in college-level STEM courses, the research component is intended to (1) expose participants to a diverse range of STEM fields, (2) give participants experience conducting research in a STEM field, (3) provide participants with an opportunity to present research findings to a group, and (4) impart a set of basic scientific research and technical skills needed to complete their project, as required. Perhaps most importantly, participants should leave the STEM program **feeling confident** and with a **sense of accomplishment**. The structure and design of WSP STEM research projects vary widely. Consequently, research project leaders have a wide berth with respect to how they achieve these objectives. Participants have diverse backgrounds and preparedness levels; the design of the project should support participation by all group members.



RESEARCH PROJECTS

Each research project leader is responsible for helping a group of between four to six WSP participants achieve or become familiar with the learning goals above. The WSP participants typically have no or very little science background. RPLs are encouraged to request research projects from previous courses and use them as a model for their own research projects. RPLs are also encouraged to consult RPLs from previous WSP STEM courses for guidance, which can be arranged by WSP.

RPLs can expect to spend approximately two to five days either developing their own research project or adapting an existing research project - this time will vary depending on the project. RPLs are encouraged to use existing Python-based research projects from WSP.

Students will complete a Python tutorial independently prior to beginning their research projects. A significant portion of the first morning of research time is usually dedicated to formal instruction, with the rest of the week consisting largely of hands-on experimentation, problem-solving, and other independent research activities. Formal instruction may be scattered throughout the rest of the week as required, but participants are strongly encouraged to work as a team to achieve their research goals, with the RPL primarily serving as a source of expertise, assisting their research groups with technical issues, and providing guidance when needed.

SCHEDULE

Note: All times correspond to the time zone in which a given campus is located.

For 2-week STEM programs, research project leaders will lead research project groups on Monday from 10:30 am to 12:30 pm, on Tuesday through Thursday from 9:00 am to 11:00 am, and on Friday from 9:00 am to 12:30 pm. The additional time on Friday is allotted for participants to create and rehearse their research project presentation. The research project design should allow participants a reasonable chance of achieving one or more research goals on or before Friday morning.

For 1-week STEM programs, research project leaders will lead research project groups on Tuesday through Thursday from 9:00 am to 11:00 am and on Friday from 9:00 am to 12:30 pm. As with the 2-week STEM programs, this additional time on Friday is allotted for creation and rehearsal of presentations.

Research project leaders will be present to observe research project group presentations on Friday afternoon from 2:00 pm to 3:00 pm. RPLs will also briefly introduce themselves and describe their research project during the welcome address on Monday morning. Finally, RPLs are responsible for attending staff meetings Monday through Thursday at 4:45 pm and Friday at 12:30 pm, or making alternative arrangements with the WSP Senior Fellow to provide feedback and insight on participants' progress.



The WSP STEM program requires *three* research project leaders from each campus. The RPLs will separate their groups into different classrooms or labs during designated research time. RPLs are responsible for ensuring students are released from their research group with enough time to arrive as scheduled for the next event.

Note that 2020 participants will depart campus one day earlier (Saturday) compared to previous years. All WSP STEM courses will have research project presentations on Saturday morning and end-of-course events will take place on Friday evening in 2020. Participants will use a portion of Friday afternoon and work at their own pace on Friday evening to create and rehearse their research project presentations. RPLs will not be present to assist with preparation of research project presentations following Friday afternoon.

REQUIREMENTS

Research project leaders are expected to:

- Coordinate with WSP central staff and Virtual Training Team Fellows prior to the course
- Develop a Python-based research project suitable for a group of 4-6 non-traditional students and catered to a wide range of levels of academic preparedness prior to the course
- Ensure their research project has several built-in milestone objectives to promote participant confidence
- Write a one-to-two paragraph description of the research project and submit it to the lead Virtual Training Team Fellow at least two days prior to the course
- Provide formal instruction to research group to teach essential skills, as required
- Advise, guide, and mentor research group members during all designated research time
- Attend the course welcome address, staff meetings, and research project presentations
- Provide WSP staff with ongoing feedback regarding each participant's progress
- Attend end-of-course events (recommended but not required)