



The Cascadia Region Earthquake Science Center Project Management Plan

A robust and well-defined system of leadership, governance, communication, and evaluation is required for CRESCENT to achieve its ambitious goals of advancing fundamental research on earthquake hazards science, contributing to the diversification and preparation of our future geoscience workforce, and translating research to practice and policy through community engagement. See the CRESCENT Strategic Plan for an overview of our goals.

The following Project Management Plan presents an overview of the systems designed to provide internal and external oversight, manage efficient operations, facilitate productive connections with relevant stakeholders (including knowledge dissemination to communities), and evaluate Major Activities (MAs) to ensure CRESCENT is meeting its objectives and adapting strategies as needed based on participant and stakeholder feedback and formative assessment.

Leadership and Governance	1
Pillar Committees and Working Groups	3
Operational Management and Coordination	6
Administration and Evaluation of Major Activities	8

Leadership and Governance

The leadership and governance structure is designed to promote and facilitate the successful integration of research, workforce development, and community outreach activities in ways that maximize efficiencies and resources and keep all the teams working across the many partner institutions informed and engaged. Director Melgar, in partnership with Assistant Director Elizabeth, is the point person for administrative oversight for the project, including reporting to NSF Program Officers.

The Executive Committee (Ex-Comm) leads CRESCENT, is chaired by Director Melgar, composed of Co-PIs Melbourne, Share, Thomas, and Tobin, center pillar leads Sahakian and Meigs, as well as Lydia Staisch, representing USGS. The Assistant Director serves as an ex officio member of Ex-Comm.

This committee is charged with ensuring the overall success of the center and coordinating leadership across committees. Direction and decisions are made via a consensus-building approach among members, with input from the External Advisory Board (EAB), external evaluator, committee leads, and center staff as needed. This committee provides overall project oversight, manages the allocation of resources, and engages with the EAB.

The Ex-Comm committee activities include:

- Meet regularly (every few weeks) to discuss center business and oversight.





- Convene ad-hoc committees as necessary (e.g., annual meeting planning).
- Discuss resource allocation and fiscal management.
- Review progress of each of the three pillar committees.
- Develop, with input from the committees, the annual seed grants solicitation. Review recommendations of review panel and make funding decisions.
- Discuss development strategy and opportunities.

The External Advisory Board (EAB) consists of members that reflect the CRESCENT community including academics, government agency scientists or officials, and the public and private sector from Oregon, Washington, California, and Canada. The EAB supports the success of the project's in-reach (i.e., communication and integration across Major Activities MAs), outreach (i.e., flow of communication to and from the broader community, attracting participants), and evaluation of educational activities. The board has three functions: 1) review the goals and progress of CRESCENT; 2) provide guidance and recommendations to center leadership on opportunities and challenges; and 3) build and expand the CRESCENT network by identifying and facilitating partnerships with new stakeholders and serving as ambassadors to wider networks. The board convenes twice per year, once via videoconference and once at the CRESCENT annual meeting and is involved in specific outreach and community-building activities as appropriate. At these meetings, the board advises the project leadership team, who presents the CRESCENT annual report on research milestones, educational activities, project evaluation data, and community outreach achievements.

Board members are selected for expertise and leadership across the center's three focus areas of earthquake hazards research, education, and community partnerships. Current members of the EAB are: Wendy Bohon (recently hired by California Geological Survey), Veronica Cedillos (GeoHazards International), Tim Dawson (California Geological Survey and current chair of the Statewide California Earthquake Center), Tiegan Hobbs (Geological Survey of Canada), Albert Kottke (PG&E), Martin Lawrence (BC Hydro), Ed Nissen (University of Victoria), Michael Oskin (UC Davis), and Aaron Velasco (University of Texas).

External Evaluator: Dr. Michael Coe of Cedar Lake Research Group, LLC serves as the external evaluator for the collection, analysis, reporting, and use of assessment data, feedback and recommendations from participants, along with overall progress toward key goals. Data collection generates formative information to assist with project management and improvement, as well as findings that will contribute to a summative review of project outcomes. To tailor the evaluation research to CRESCENT's specific goals and activities, while minimizing the research burden on participants, brief surveys and interview protocols will use both structured and open-ended questions. All data collection procedures will be approved before use by the UO Institutional Review Board for the protection of human subjects in research. The external evaluator is an integral part of the project leadership team and participates regularly in team meetings. Evaluation findings are routinely used for project management, to inform the EAB and annual reports to NSF and stakeholders, and may be included in project publications. The evaluation strategies for each MA are detailed below.

Pillar Committees and Working Groups

Reporting to the Ex-Comm are 3 committees which reflect the three pillars of the center: 1) Science Planning 2) Geoscience Education and Inclusion , and 3) Partnerships and Applications. These committees oversee the implementation and assessment of the major activities. These groups connect regularly to enable sharing and integration of communication, activities, and discoveries, as well as reporting to the Executive Committee.

Science Planning (SP): Chaired by Co-PI Thomas, this committee is charged with overseeing and coordinating the 5 working groups (WGs) and 4 special interest groups (SIGs) responsible for organizing the topical workshops (MA3), managing the cyberinfrastructure resources (MA4), and overseeing the activities of community models/WGs (MA1).

The Science Planning committee (SP) is composed of the leaders of each working group plus external scientists with good command of the center's research and goals. SP monitors the progress of each WG/SIGs, ensuring alignment with overarching center goals, and facilitating resource allocation. The SP committee regularly reviews reports, updates, and findings generated by the working groups to evaluate their effectiveness and adherence to timelines project deliverables.

SP serves as a liaison between WGs and ex-comm, providing an integrated summary of collective advancements, challenges, and recommendations. The research and discoveries generated by the WGs and SIGs will integrate closely with the efforts of the GEI committee. SP also advises the GEI committee in terms of potential topics to address in the technical short courses, curriculum for undergraduate research programs, and the like.

The SP committee activities include:

- Have regular online meetings (every 2-4 weeks).
- Track that milestones in the project deliverables spreadsheet are being met.
- Oversee development of the community models.
- Facilitate inter-WG collaboration and communication.
- Contribute to the CRESCENT meeting agenda and planning.
- With the assistance of the center staff and the GEI committee organize topical workshops.
- Oversee cyberinfrastructure/developer resources and task them as needed in pursuit of community model goals.
- Propose language and science targets to the ex-comm for the seed grants solicitation.
- Collaborate with GEI committee in leading and developing technical short courses.

Reporting to the SP committee are five working groups. Each WG is charged with making sure the science deliverables associated with the community models are being met and to contribute to the organization of topical workshops and assist in identifying leads for the technical short courses.

The Working Group committee activities include:

- Each WG selects a lead, or co-leads, tasked with organizing regular meetings (at a minimum once per month), facilitating collaboration, maintaining agendas, meeting minutes and reporting to SP.
- Each WG coordinates and openly discusses the research in pursuit of the community models between the multiple researchers, postdocs, and students involved.
- Each WG can solicit participation and membership from scientists not named in the center senior personnel list.
- Each WG will hold at regular intervals (2-4 times per year) open meetings to discuss its progress and solicit feedback and input from the broader community.
- Each WG will, as needed, assist SP with planning topical workshops.
- Each WG will, as needed, assist the SP and GEI committee with identifying people to lead technical short courses and create curricular content.

Geoscience Education and Inclusion (GEI) is chaired by senior personnel Meigs, this group includes PI Melgar, senior personnel Hubenthal, Kelsey, and Dura, and community members Michael Brudzinski and Samuel Castonguay. The GEI Program Manager also serves in an ex-officio capacity. This group coordinates and oversees the high school STEM pathways (MA6), undergraduate research programs (MA7), graduate fellowship and postdoctoral mentoring activities (MA8), and technical short courses (MA9).

The GEI committee is entrusted with overseeing the educational and training activities of the center, as well as monitoring its commitments to Diversity, Equity, and Inclusion (DEI). Recognizing that a highly-skilled and diverse workforce is integral to the science center's success and social responsibility, the committee continuously evaluates the efficacy and reach of all educational programs and training initiatives. This includes reviewing curricula, assessing participant feedback, and ensuring that the programs align with current educational standards and best practices. Simultaneously, the committee is charged with ensuring that the center's DEI commitments are not merely aspirational but actively integrated into its workforce development strategies. Through these activities, the GEI committee aims to cultivate a learning environment that is both cutting-edge and inclusive, setting the foundation for the science center to excel in its mission and values.

The GEI committee activities include:

- Convene regular online meetings (every 2-4 weeks).
- Contribute to the CRESCENT meeting agenda and planning.
- Solicit cyberinfrastructure resources from SPC as needed in support of technical short courses.
- Collaborate with SPC in planning of technical short courses.
- Generate curriculum and training activities to ensure instructors of technical short courses are successful.
- Propose language and science targets to the ex-comm for the seed grants solicitation.
- Oversee the planning and execution of the high school STEM pathways program.

- Oversee the planning and execution of the year-long undergraduate twinning internship.
- Oversee the planning and execution of the cores2code summer course.
- Evaluate and make funding decisions on applications from graduate students for travel fellowships to the NAGT workshops.

The Partnerships and Applications(P&A) committee is chaired by senior personnel Sahakian, and includes Co-PI Share, and senior personnel Olsen (representing CLiP) and Dengler (representing RCTWG), as well as the P&A Program Manager, who serves ex-officio. This team interfaces with all major activities by communicating about available resources and infrastructure, training opportunities, and hosting events with diverse stakeholders (i.e., researchers, local and regional governments, community groups, etc.). This group also oversees all externally focused communications efforts, including creating and maintaining content for the [CRESCENT website](#), managing stakeholder communications and social media engagement, as well as convening and hosting community stakeholder events (MA10).

The P&A committee serves as the interface between the center and the broader community, tasked with the vital role of translating scientific research into meaningful societal outcomes. This includes coordinating educational outreach, public forums, and collaborative projects that leverage the center’s expertise to address community-specific challenges. Furthermore, the committee is responsible for establishing and nurturing partnerships with various community stakeholders—ranging from local government agencies and non-profit organizations to educational institutions and businesses—to create a network of shared resources and opportunities. Additionally, the committee is charged with reporting on how the center science strategy can be adjusted to be more responsive to the community’s needs. Through these activities, the P&A Committee aims to ensure that the science center's work is both accessible and beneficial to the community, thereby fulfilling a broader social responsibility.

The P&A committee activities include:

- Have regular online meetings (every 2-4 weeks).
- Contribute to the CRESCENT meeting agenda and planning.
- Solicit cyberinfrastructure resources from SP as needed in support of any collaboration activity.
- Propose language and science targets to the ex-comm for the seed grants solicitation.
- Actively seek partnership building opportunities with any and all organizations involved in earthquake hazards research, planning, or response.
- Design multimedia content for outreach activities.
- Responsible for, in collaboration with GEI and SP, social media strategy.
- Collaborate with partners such as the Cascadia Lifelines Program in hosting regular webinars for practitioners.
- Plan and execute yearly community collaboration meetings between community collaborators and center scientists.



Two additional major activities (MA2: CRESCENT Workshop; MA5: Seed Grants) will be coordinated by the Assistant Director with oversight from the Executive Committee.

Operational Management and Coordination

The integration of research, workforce development, and community outreach across multiple institutions is managed through functional systems of shared data and resources, consistent reporting and meeting schedules, and internal and external communication strategies that keep all CRESCENT partners engaged and informed. A dedicated SharePoint serves as the primary site for organizing and managing documents and data. Personnel connect on a regular basis through e-mail, meetings (online or in person), and the dedicated Slack workspace. The [CRESCENT website](#) hosts center products, post center news, link to social media, and promote the center activities. As part of the launch of the center, the Ex-Comm, along with the committee and workgroup leads, has developed and published (on the [CRESCENT website](#)) shared goals and expectations for respectful, inclusive, and equitable practices in meetings, conduct, and collaboration, similar to the code of conduct utilized by the Seismological Society of America.

The Ex-Comm is in regular communication via existing channels (e-mail, Slack, etc.) and meets regularly to review and assess progress of committees, discuss and strategize new opportunities, and review budgets and resource allocation. Ex-comm meetings include representatives from each of the 3 pillar committees to discuss activities, review progress, and facilitate any necessary programmatic or research changes required based on evaluation and feedback. Brief budget reviews at these meetings maintain transparent, equitable, and efficient resource allocation.

Committees communicate internally using project management platforms such as Slack and Microsoft Teams (deferring to preferred practice for each group). The Science Planning WGs are the largest and most complex, as they include researchers from multiple institutions; as such, each WG will have 1-2 leads responsible for oversight and operations.

Annual Meeting: CRESCENT will host an annual meeting with all senior key personnel and the EAB to present major achievements, solicit feedback and input from participants and EAB members, and share resources with stakeholders. This meeting will be held in person in years 1, 3, and 5. In addition to sharing the accomplishments and progress of the team members in conducting the center's major activities, this meeting will provide a forum for all the undergraduate students, graduate fellows, and postdocs funded by the center to present their work, stakeholders to co-present on efforts to translate research to policy, and will facilitate networking opportunities. WGs will provide status updates and hold planning meetings during this event.

Resource Allocation & Fiscal Management: Given the complex administrative coordination needed to manage center operations, the majority of the budget is managed at the University of Oregon. The Assistant Director and Project Administrator work closely with UO's Sponsored Projects Services to negotiate and execute subaward agreements with the institutions already



engaged as collaborators, as well as new agreements funded through the center via seed grants and educational programs. Administrators at UO bring extensive experience in managing complex multi-institution awards and are well-positioned to support the Assistant Director and Ex-Comm in managing the complex contracts and financial planning required to operate CRESCENT.

Publications and Intellectual Property: As part of the initial efforts to launch the center, the Ex-Comm will establish guidelines for all center participants on publications and authorship, as well as intellectual property. Authorship guidance will promote students and early career faculty in support of their professional development. The Ex-Comm will consult with the technology transfer offices at their respective institutions to develop policies related to intellectual property. Expectations and rules for authorship and intellectual property will be posted on the CRESCENT website.

Communications Strategy: As noted above, internal communications among CRESCENT personnel will utilize project collaboration tools like Slack and SharePoint, in addition to regular meetings, e-mail, etc. The external communications strategy will be implemented to amplify the reach and impact of the center, connect stakeholders with center resources, attract trainees for educational activities, solicit applications for the seed grants program, disseminate findings, and share resources for community organizations translating research to practice and policy.

Center website and Social Media: A central CRESCENT website serves as the primary communications hub. It will be developed by an external contractor (as part of MA10) and maintained by center staff. It provides an overview of the center team members and partner institutions, outlines the center goals and activities, and will serve as the platform for sharing resources with stakeholders. In addition to the website, CRESCENT will broaden its reach through social media engagement on Twitter, Instagram, TikTok, etc., to promote and celebrate center activities and attract participants for workshops and fellowships. The P&A program manager is primarily responsible for maintaining the website, as well as managing social media. However, the GEI program manager and Assistant Director create and update content related to the activities and programs they coordinate.

CRESCENT Newsletter and Town Hall: A quarterly CRESCENT newsletter, prepared by the P&A program manager, in partnership with the Ex-Comm, will be shared with center personnel and collaborators, as well as individuals who subscribe to the newsletter through the CRESCENT website. This newsletter will promote opportunities for researchers (i.e., seed grants programs, topical workshops) and trainees (i.e., technical short courses, fellowship programs), share highlights of center successes, and disseminate information most relevant to community stakeholders. Coordinated with the release of the newsletter will be an online town hall for stakeholders and participants to discuss the news and events highlighted and ask questions of program leadership.

Publications and Conference Presentations: CRESCENT will spur significant research activities at partner institutions, as well as those funded through the seed grants programs. Much of this



research will be disseminated through the CRESCENT meeting (MA2) and topical workshops (MA3). However, we also anticipate that researchers funded through CRESCENT will disseminate findings through peer-reviewed publications and presentations at major scientific conferences. Researchers will be asked to recognize CRESCENT support in their dissemination. The deliverables generated by the community model WGs will be disseminated through publications and conference proceedings, as well as being shared directly with community stakeholders via the [CRESCENT website](#). The Ex-Comm will also work closely with the committees to prepare an annual report, which will be shared with the broad community via the [website](#), at the annual CRESCENT meeting, and via the newsletter/town halls.

Conflict Resolution and Risk Mitigation: Should a conflict arise, the Ex-Comm will review the concern and attempt to identify a solution by consensus. Given the long and productive history of collaboration among the PIs and senior investigators, we anticipate that all, or nearly all, issues will be resolved using consensus decision making. In the unexpected event that a consensus for action to resolve a challenge is not possible, the Ex-Comm will consult with the EAB and ultimately vote, with a majority vote needed for a decision to be finalized. In the unlikely event that a conflict arises among the Ex-Comm, the Center Director will consult with members of the EAB, or an impartial senior administrator from a participating institution (e.g., VP for Research), for advice, feedback, or arbitration.

In an instance in which a senior personnel member changes institution, their effort and financial resources would most likely be transferred to that individual's new institution (unless the former institution has issues with the transfer or the new institution is not eligible for transfer of NSF funding). Should a project member become unable to continue in their role, the Ex-Comm would evaluate the most efficient path forward to either replace that individual or assign their responsibilities to an existing member of the team. Feedback and guidance from the EAB would be sought to identify solutions that best mitigate risk and maintain continuity in center operations should we encounter this type of unexpected event.

Administration and Evaluation of Major Activities

MA1: Community Model Development, Working Groups (WG), and Special Interest Groups (SIG)

Administration: Co-PI Thomas, as chair of the Science Planning committee, oversees and manages the WGs responsible for community model development, as well as the four SIGs. Each WG and SIG is led by a senior investigator(s), responds to a clear charge, and will produce an expected set of deliverables on a specific timeline. The WG leads will oversee and supervise graduate students and postdoctoral scholars funded to complete the research and activities to generate each WG's deliverables. WG leads collaborate closely with the chair to identify and secure services and computing resources from the team of developers.

The SIGs operate in a comparable manner to WGs but have more limited budgets and smaller teams to pursue emerging topics in earthquake hazards that are related to, but not necessarily directly within, the science goals of the center. The SIG's leads will inform and ensure the



Science Planning committee is aware of and thinking strategically about other research partnerships and opportunities.

Each WG/SIG can add new members to its leadership as needed. WG members are expected to be directly involved in fulfillment of the WGs deliverables. To propose a new person to add to its structure, the current WG members will discuss the reasons and benefits for adding the new member and take a vote. With a favorable vote, the WG lead will discuss the addition with the science planning committee and collect necessary feedback. If in this process a significant cause for concern is identified, the WG lead, at their discretion, can go back to the WG membership and inform them of said concern, discuss it, and call for a vote once more. A simple majority vote is sufficient, and we encourage consensus building in all decision making.

Once the new member addition is finalized, the WG lead will reach out to the new member to confirm they accept the charge, and inform the science planning committee lead and the center assistant director so that an up-to date roster of membership can be kept and the new member is integrated into project workflows and communications.

Evaluation: The major outcomes of MA₁ are the creation and dissemination of the deliverables for each WG and SIG. Co-PI Thomas will be responsible for tracking the progress and completion of the deliverables and will work with the P&A program manager to disseminate these resources effectively to stakeholders. Graduate student dissertations and peer-reviewed publications will be one indicator of the success of this activity. EAB members with relevant expertise will review the work and provide an assessment of progress along with feedback and recommendations.

MA₂: CRESCENT Meeting

Administration: The Ex-Comm, in partnership with the committees, will convene a planning committee to design the agenda and schedule for these meetings. In year 1, the meeting focused primarily on WG planning with two keynote speakers to motivate the work. In subsequent years, at least 2-3 additional program personnel and/or stakeholders will be recruited to serve on the planning committee to offer external perspective on the agenda, such as identifying session themes and inviting keynote speakers. The Assistant Director, with support from the Project Administrator, will be responsible for the coordination of all meeting logistics, including event planning, travel, and registration. Event promotion (prior to the workshops to promote and during and after to amplify impact and circulate resources) will be coordinated by the Assistant Director in partnership with the P&A program manager. The workshop materials will be available following the event on the [CRESCENT website](#).

Evaluation: Key evaluation measures include conference attendance (overall and for specific sessions), as well as feedback from conference participants. A brief post-conference survey will inform planning and hosting of subsequent meetings and will collect additional structured feedback and recommendations on project activities and management. In addition to questions related to overall satisfaction with the event (e.g., logistics, programming) and recommendations for future meetings, the survey will ask participants to identify their primary



learning outcomes, as well as new research, education, or community partnerships established through the event.

MA3: Topical Workshops

Administration: Each of the 5 WGs under the Science Planning committee will lead 1-2 topical workshops over the course of the project. Additional topical workshops will be used to advance the research of SIGs. Each workshop will be led by 2-5 senior investigators who will design the agenda and schedule for these events, including identifying and inviting speakers and key participants. As with MA2, the Assistant Director will be responsible for the coordination of all logistics. Event promotion will be coordinated by the Assistant Director in partnership with the P&A program manager and resources from the workshops will be available on the [CRESCENT website](#).

Evaluation: Key evaluation measures include workshop attendance, as well as feedback from participants. A brief post-workshop survey, prepared and analyzed by the External Evaluator in coordination with the Assistant Director and lead presenters for the workshops, will provide feedback on the program and recommendations for future events. In addition to survey questions similar to the post-event survey for MA2, participants will be asked to identify major lessons learned. Each workshop will be required to generate a short, written report that details the goals and main findings of the workshop and its impacts on strategic planning for the WG or SIG activities. The leads for the workshop will also summarize the resources and deliverables shared with participants.

MA4: Cyberinfrastructure Support

Administration: CRESCENT will oversee and manage shared cyberinfrastructure—both for human capital (i.e., a team of developers) and cloud-based computing resources. Co-PI Thomas will oversee the team of developers and liaise between the WGs and SIGs and the developers to assign projects to support the execution of the deliverables for the various community models. Developers will meet with Co-PI Thomas (and researchers as needed) to confirm scope of work, timeline, and expectations for services. In addition, all CRESCENT computing resources will be hosted using Amazon Web Services. There will be a shared “CRESCENT Cloud” workspace to which all investigators involved in CRESCENT will have access. This shared workspace will include both the computing and storage resources detailed in MA4. Co-PI Thomas and Senior Personnel Gabriel will work with the developers and other relevant investigators to access high-performance cloud computing through NSF ACCESS or other providers.

Evaluation: As noted above, each project assigned to the developers will have a specific scope of work and timeline. Co-PI Thomas, along with the WG and SIG leads, will track and monitor the progress for each team in conducting the fundamental research, developing the necessary data science and technology resources, and completing their deliverables. Workplans will be managed by referencing the Research and Operations Plan developed for each WG and SIG which includes milestones and deliverables that can tracked. Feedback will be requested from



developers, researchers, and other relevant participants involved in the WGs and SIGs at monthly meetings to identify and resolve any challenges, monitor timelines, and identify new opportunities of interest. EAB members with relevant expertise will review the work and provide an assessment of progress each year along with feedback and recommendations.

MA5: Seed Grants Program

Administration: The Assistant Director will be responsible for the administration and management of the seed grants program. The Ex-Comm, with feedback from the Science Planning, GEI, and P&A committees, will design the annual request for proposals (RFP), which will have an annual deadline and focus on ~3 themes or topic areas. The program will be announced and promoted on the [CRESCENT website](#) and newsletter, as well as at technical short courses and topical workshops. With guidance from the Ex-Comm, the Assistant Director will identify and recruit 5 external scientists to serve as a review panel (honorariums provided). Proposals will be submitted through an online platform (e.g., Smartsheet) to streamline record keeping and sharing of materials with review committee members. The review committee will read and score proposal submissions based on a rubric established at the time of RFP development and will meet virtually to discuss the proposals. The panel will make funding recommendations to the Ex-Comm, who will make final award decisions. The Assistant Director will prepare and execute the subawards and coordinate the final reporting process.

Evaluation: The Assistant Director will monitor and report the number of submissions and awards annually, as well as key demographics for applicants and awardees (rank, institution, gender, etc., collected on the application form). It is important that a diverse, competitive pool of researchers are submitting proposals. Thus, demographic information on the applicant pool and awardees will inform if the center needs to adapt its outreach strategies to reach a broader audience. In addition, each grant recipient will be required to submit a final report. The report will be distributed via an online platform, allowing the Assistant Director to easily quantify the major outcomes of the awards (i.e., number of publications, presentations, students trained, grant proposals in preparation/submitted, etc.).

MA6: High-school STEM pathways

Administration: In year 1, personnel from EarthScope Consortium will advise the GEI Program Manager to establish the groundwork for launch of the program in year 2. The GEI Program Manager will coordinate the activities for the high-school STEM pathways program, managing the outreach and communications to advertise and attract participants via [CRESCENT website](#), social media, newsletter, etc. As MA6 builds off Co-PI Thomas's existing efforts in K-12 outreach among Indigenous communities, the team already has strong ties to high schools with whom to partner. Professor Meigs and Co-PI Thomas will use existing relationships to attract students and will select the host institution and design and help implement the programming. The GEI Program Manager will work closely with the Project Administrator to manage the financial and travel logistics.



Evaluation: Evaluation will be based on surveys and interviews with participating students. Survey instruments and interview protocols will be designed, coordinated, and analyzed by the External Evaluator to assess the value of the project for stimulating student interest, aspirations, and self-efficacy for continued secondary and post-secondary education and career exploration in geoscience and related STEM fields, along with their awareness, knowledge and behavioral intentions regarding geohazards, community preparedness, and resilience.

MA7: Undergraduate Research

Administration: Personnel from EarthScope Consortium will collaborate with the GEI Program Manager on program design and initial launch. Thereafter, the GEI Program Manager will be responsible for the administrative management of undergraduate research programs (twinning research program and Cores to Code summer school). As such, they will manage outreach and communications to advertise and attract participants for these opportunities via the [CRESCENT website](#), social media, newsletter, etc., as well as manage outreach to potential mentors. The GEI Program Manager will work with leads for each program to develop an application, convene a review committee, and coordinate the application selection process. The GEI Program Manager will work closely with the Project Administrator to manage the financial and travel logistics for each of the education programs.

Evaluation: Evaluation will be based on surveys and interviews with participating students and their sponsoring mentors in selected institutions. Survey instruments and interview protocols will be designed, coordinated, and analyzed by the External Evaluator to assess the perceived value of the project for supporting and increasing student interest and aspirations for continued post-secondary education and career advancement in geoscience and related STEM fields, as well as their related skills, self-efficacy, knowledge, and experience in geoscience research and science communication. Specific curriculum units and activities for these research experiences will be evaluated in detail to support an ongoing, iterative design research process that will be used to refine the undergraduate research programs each year. EAB members with relevant expertise will also review the work and provide an assessment of progress each year along with feedback and recommendations.

MA8: Graduate and Postdoctoral Professional Development Fellowships and Mentoring Activities

Administration: Parallel to MA6 and MA7, the GEI Program Manager will coordinate the outreach and recruitment, application review, and selection of applicants for travel fellowships to attend professional development activities such as the yearly National Association of Geoscience Teachers (NAGT) meeting. Selection will be made following review by representatives from GEI committee. The Center Coordinator will manage the financial and travel logistics. The postdoctoral fellows and graduate students funded through MA1 will be supervised by the senior investigator at their home institution (member of a WG or SIG) but will be part of a broader cohort of CRESCENT scholars facilitated by group trainings and networking



opportunities at CRESCENT meetings, as well as presentations at scientific meetings and conferences.

Evaluation: CRESCENT opportunities for graduate students and postdoctoral scholars will also be evaluated primarily through structured surveys and interviews designed, coordinated, and analyzed by the External Evaluator, along with their research output (successful theses, dissertations, and publications). To the extent feasible, long-term follow-up interviews will also be used to assess their career trajectories and the extent to which their CRESCENT experiences contributed to their career development.

MA9: Technical Short Courses

Administration: Researchers from the Science Planning committee and WGs will be identified to lead different technical short courses (MA9). These leads will design the agenda and schedule for these workshops, including identifying and inviting keynote speakers. As with the MA2, the Assistant Director will be responsible for the coordination of all the meeting logistics. Event promotion will be coordinated by the Assistant Director in partnership with the P&A Program Manager and materials will be available on the center [website](#). The GEI Program Manager will assist the leads in preparing content in an inclusive way using modern pedagogical best practices.

Evaluation: Pre-workshop activities, such as webinars or online overviews, as well as the more extensive in-person technical short courses, will be evaluated using participant surveys designed and analyzed by the External Evaluator. Participants will be asked for structured feedback and recommendations on quality, relevance and usefulness of the content, format and delivery of the workshops for their learning and for application in their academic or professional setting, and future recommendations.

MA10: Partnerships and Applications

Administration: The P&A Program Manager, with guidance from the PAC, will be responsible for managing consistent stakeholder engagement through the communications strategy (see above) and the coordination of the annual stakeholder meeting. The P&A Program Manager will connect with the external partners serving on the EAB and committees to ensure that these individuals are well-integrated within the center and will serve as the point of contact for identifying new partners to help serve on the planning committees for the CRESCENT meetings and other workshops. The P&A Program Manager will help resolve any unexpected (and unlikely) challenges or concerns arising from partners serving in these positions. In addition to the communication activities outlined above, the P&A Program Manager will work with the Project Administrator to coordinate the travel and event logistics for activities to be hosted across the Cascadia region to connect practitioners and community stakeholders with discoveries, new knowledge, and best practices identified through center efforts. Styled after “science pubs,” these events will provide engaging forums for connecting the center’s science efforts directly with public learning and public good.



Evaluation: Evaluation measures include event attendance and brief post-event surveys, as well as annual stakeholder survey. The stakeholder survey will solicit feedback on the stakeholder engagement strategies, communication, coordination, as well as recommendations for future outreach and resources.

For more information, contact us at cascadiaquakes@uoregon.edu.