# Best practices

Geospace Environment Modeling
Working group

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Summary

This document is provided as a guide for existing, new, and future members of the Geospace Environment Modeling (GEM) Steering Committee (SC).  It is intended to be a dynamic document, updated at least annually, that captures the duties and responsibilities of each SC role, and the approximate timeline of events that the SC member needs to follow to perform their duties. There is also a page for how to propose and run a focus group.

Contents

# GEM Chair

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
2) Run Steering Committee meetings **(June and December)**
   a. Identify number and type of Steering Committee members who need to be elected, advertise for positions (**April-May**)
   b. Solicit agenda items from Steering Committee **(May and November)**
   c. Send agenda to Steering Committee **(a week before meeting)**
3) Communicate with GEM community as needed, especially before summer workshop and mini-GEM **(year round, especially April-June and October-December)**
   a. Write entry for annual GEM report GEMStone **(by September)**
   b. Announce logistic information for annual meetings **(May and November)**
   c. Remind community about policies, including anti-harassment **(May)**
   d. Inform community about due date for focus group proposals **(October)**
4) Determine when Steering Committee members are cycling off the committee and need to be replaced **(April)**
   a. Solicit (self-)nominations to fill positions in GEM and SPA newsletters
   b. Help recruit new Steering Committee members
   c. Respond to applicants to confirm receipt
   d. Gather application packets and distribute to Steering Committee a week before summer SC meeting
5) Oversee Meeting Organizer, Tutorial Subcommittee, Communication Coordinator, and Student Representatives to ensure actions are being carried out appropriately **(ongoing)**
6) Communicate with NSF GEM program coordinator **(as needed)**
7) Identify emerging needs and form ad hoc subcommittees for addressing those needs. Examples are subcommittees on creating an anti-harassment policy, CEDAR-GEM coordination for joint meetings, student poster/prize, entertainment for GEM banquet, etc.
8) Send an annual email to the Steering Committee to update the "Best Practices" document (i.e., this document)
9) Update this document at least once per year, preferably in the month following the GEM summer meeting (while GEM-related activities are still fresh in everybody's minds). Send out a reminder email to the SC (**July**).

## GEM Chair-elect

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
   a. Chair-elect is a voting member
   b. Take minutes at Steering Committee meetings
   c. Serve on subcommittees as needed
2) Support Steering Committee Chair as needed **(ongoing)**
   a. Assist with Chair's communications with the community
   b. Chair some plenary sessions at the summer workshop **(June)**
3) Chair the Tutorial Subcommittee to select plenary tutorial talks at summer workshop **(March – June)**
   a. Select subcommittee (3-4 members from steering committee, including Meeting Organizer), set up public document for scheduling
4) Contribute to oversee Meeting Organizer, Communication Coordinator, and Student Representatives to ensure actions are being carried out appropriately **(ongoing)**
5) Help recruit new Steering Committee members **(as needed)**
6) Provide feedback from yourself and from the community and share with Chair **(ongoing)**
7) Update this document at least once per year

## GEM Research Area Coordinators (RACs)

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
   a. RACs are voting members
   b. Serve on subcommittees as needed
2) With the Tutorial Subcommittee, identify tutorial speakers for summer workshop **(March – June)**
   a. Preference for speakers should be given to people not on the steering committee
3) Submit annual reports and final reports from Focus Groups in the research area for publication in GEM Messenger and/or GEMstone **(June – August** for workshop reports and **November or May** for final reports**)**
4) Help as needed to prep for annual meetings **(May and November)**
5) Provide guidance to community for future focus group proposals **(as needed)**
6) Help recruit new Steering Committee members **(as needed)**
7) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
8) Update this document at least once per year

# GEM Science Community (At-Large) Member of Steering Committee

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
   a. At-large members are voting members
   b. Serve on subcommittees as needed
2) Help as needed to prep for annual meetings **(May and November)**
3) Help recruit new Steering Committee members **(as needed)**
4) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
5) Update this document at least once per year

# GEM Student Representatives (GSRs)

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
    a. Student Representatives are non-voting members
2) Organize student day and related activities **(March - June)**
    a. Invite speakers
    b. Work with Meeting Organizers for meal plans for student day and student dinner
    c. Plan social events
    d. Plan panel/activities for student dinner
    e. Organize poster award judging
    f. Make announcements about poster award at summer workshop
    g. Compile poster award rankings, announce
    h. Communicate plans with Chair/Vice Chair before making them public
3) The outgoing, current, and incoming GSR (together) write the GEM Student Report summarizing all the activities that the GSRs are responsible for. This is the last official act of the outgoing GSR. The summary should include some details about Student Day, the GSR election, and the GEM Student Poster Competition (**June – August)**
    a. If needed, the current GSR should survey the students to help the planning for next GEM, including what students liked, disliked, or wish to be changed
    b. Update the GEM Student Forum (on the GEM Wiki) to include the new GEM Student Poster Winners, upload their winning posters, and update Student Day Talks
    c. Submit this GEM Student Report to the Communications Coordinator for publication in the GEM Messenger and the annual workshop issue of the GEMstone.
4) If needed, discuss the survey with the Chair/co-chair and determine possible solutions to any questions or issues raised by students (**August – November**)
5) If desired, contact Mini GEM Coordinator to request a room for the Mini GEM Town Hall, a forum for students to raise issues and/or the student reps to present solutions to problems/issues raised in the survey (**November**)
6) Host the Mini GEM Town Hall if needed (**December**)
    a. If reforms are asked for, begin working on those reforms.
    b. Begin planning for Student Day. This includes devising how many talks, and what talks there should be. For guidance, feel free to look at past years for help. Ask the GEM Meeting Coordinator when they plan on

sending out the message in the GEM Messenger saying that registration is open. Also, ask when they need the list of student volunteers (THIS IS IMPORTANT AS PRIORITY FUNDING GOES TO THOSE WHO ARE VOLUNTEERING IN SOME CAPACITY).

    c. If desired, decide on theme for Student Dinner panel. Previous themes include: proposal writing, getting a job, ethics in science. You may want to rotate these around every year. Depending on what theme you decide on, ask potential panelists while at the AGU meeting if they would be interested.

    d. Determine topic of Student Invited Plenary Talk based on feedback from students.

    e. While at AGU, gauge people's interest in running for the next GSR. Try to get 2 – 3 people interested.

7) Prepare emails to be sent to GEM Messenger and GEM Students (based on previous email list) to advertise the need for GEM Student Day talks, the next GSR election, and deadlines for asking for student support; send out when GEM registration is formally announced (**January – February**)

8) Plan for Student Day and Student Poster Award at summer workshop (**February – March**)

    a. Select the speakers for the GEM Student Day talks. Try to come up with an appropriate metric. For example, seniority, preference of their talk lists, etc.

    b. Once decision is made, contact students you have selected and make sure they accept the talk. If they do not accept the talk, find an alternative. Once you have your list finalized, send it to the GEM Meeting coordinator. Send a nice rejection email to any alternates that were not selected.

    c. As registration opens, you should start getting students and judges registering for the poster competition. Record the names as they come in. One Rep will receive all this information. Each judge should try to judge at least 2 people, each student should get at least 2 judges. If you find yourself running short on judges, ASK AROUND and get RAC and FG leaders to help. (THIS IS ONGOING TIL THE DAY BEFORE GEM).

9) Plan for summer workshop (**March – May**)

    a. Finalize student dinner panel, if needed.

    b. In May, verify student day speakers one last time.

    c. When plenary tutorials are announced, find students to introduce each speaker. Ask the GEM Meeting coordinator when the schedule is decided upon and any details on who the speakers are. Preference for student introducers should be: Speaker's student (if any), another student at that same institution, then random student in similar field. If needed, introduce the student (via email if easier) to the person getting introduced. That

student should ask for the speaker's career related details. The introduction should consist of a mini CV.
d. Find someone to give the Student Invited Plenary Talk.

10) Final preparations for summer workshop **(June, week before GEM)**
    a. If needed, get more judges for the poster competition.
    b. Email current judges explaining the procedure/timeline of events and thanking them for their service
    c. Send an email to all students including all schedule-related details, details regarding signing up for the poster competition, any special events occurring during the week, etc.
    d. Print out ballots for judging…then print out extras.

11) At the GEM Meeting (**June**)
    a. Monitor and put out any "fires" that erupt (**as needed**)
    b. Make sure Student Introducers are ready, and that they have an appropriate introduction (**all week**)
    **c. GEM Student Day (SUNDAY)**
        i. Before Student Day begins, arrive early to set up the room (e.g., get projector, make sure microphones work, double check lunch menu, etc.). Collect all student talks on one laptop before session begins (to make things easier).
        ii. Give your introduction talks, introduce GEM, introduce student speakers.
        iii. Make sure Student Day runs smoothly, remember you have a timed schedule.
        iv. Announce GEM Student elections. Ideally, let's have at least 2 people running for the position. GSR should advertise how great being a GSR is. After nominees are determined, set up a survey monkey and email out to students for them to vote on the next GSR. Polls close at 8pm the day before the announcement.
    **d. GEM Monday**
        i. During the afternoon, assign judges for poster competition if hasn't been assigned already (avoid possible conflicts of interest). EMAIL OUT JUDGING ASSIGNMENTS BEFORE MONDAY ENDS! DO THIS SO THAT THEY HAVE EVERYTHING THEY NEED AHEAD OF TIME AND IN CASE ANYTHING HAPPENS!
    **e. GEM Tuesday (POSTER DAY I)**
        i. After/before the plenary talk, give a nice reminder to all judges about the location of the ballot box and that we need all ballots by the end of the second poster session night.
        ii. Right before poster session, set up makeshift ballot box
        iii. Right before poster session, place ballots right next to ballot box.

      iv. Collect ballots (both used and unused) at the end of the poster session. Someone begin organizing them. THE BALLOTS ARE FOR YOUR EYES ONLY or a trusted group of helpers.

**f. <u>GEM Wednesday/Thursday (POSTER DAY II)</u>**
      i. See Poster Day I.
      ii. Once again, friendly judge reminder.
      iii. Collect ballots at the end of the session, tabulate scores, using the premade blueprint, make the GEM Poster Winner certificates, prepare winners powerpoint.

**g. <u>GEM THURSDAY/FRIDAY (whenever time was set aside in the schedule for awards/announcements, this should be included in the initial schedule)</u>**
      i. Everyone's signatures are required for the certificates, so GSRs sign and the current GEM Chair and Chair elect sign.
      ii. At the announcement time: Announce the winner of the GSR election. Announce poster winners. Remember to take pictures of all the poster winners and record the info for the newsletter.
      iii. Ask poster winners for their posters, upload them to the GEM Student Wiki. Update the GEM Student wiki (winners, student day talks, etc.).

12) Help recruit new Steering Committee members **(as needed)**
13) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
14) Update this document at least once per year

## GEM Liaisons

Definition and background
The selection of Liaisons has always been performed by either the Chair or by the Liaison's organization which approaches GEM and then approved by the Chair or the GEM SC. There is no term limit for Liaisons, they do not vote, and they are not involved in any financial matters.  The purpose of Liaisons is to inform the GEM community about the relevant activities in their organizations. GEM usually solicits reports from Liaisons every year.

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
2) Provide written annual report to Communications Coordinator **(by April)**
3) Help recruit new Steering Committee members **(as needed)**
4) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
5) Update this document at least once per year

# GEM Meeting Organizer

Timeline for workshop organization:

One year or two years prior to the meeting, set up the contract with future GEM summer workshop and mini-GEM venues;

1. Early January, set up GEM Summer Workshop Website, and send out the messages through GEM/SPA letters;1st round of GEM announcements;
2. Late January, open applications for GEM student supports, till mid of March;
3. Early March, send out the sessions and tutorials proposals to FGs and RAs;
4. Early April, book tickets, arrange hotel rooms for students; 2nd round of GEM announcements;
5. Early May, 3rd round announcement and reminder for early registration;
6. Mid May, trying to finalize the first draft of the meeting schedule, arrange poster boards, meeting rooms, etc. (Usually these task can not be finalized till one week before the workshop.)
7. Coordinate related SPEDAS tutorials, and other small meetings sometimes;
8. June, coordinating summer workshop, video taping, collecting tutorial materials;
9. September, set up mini-GEM website, send out meeting session proposals, and send out the announcement;
10. Late October, finalize mini-GEM schedule, meeting room arrangement.

General actions:
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
    a. Meeting Organizers are voting members
2) Help recruit new Steering Committee members **(as needed)**
3) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
4) Communicate with students who applied for GEM support, including reviewing applications, reports, travelling arrangements, etc.
5) Communicate with FG and RAs about meeting schedules, then arrange rooms according the meeting schedule.
6) Update this document at least once per year
7) Provide an annual report about the Summer Workshop to communications coordinator for publication in the GEM Messenger and the workshop issue of the GEMstone. (**by September**)

# GEM Communications Coordinator

Actions
1) Attend preponderance of Steering Committee meetings at summer workshop and mini-GEM **(June and December)**
    a. Communications Coordinator is not a voting member
2) Maintain GEM Messenger electronic newsletter **(ongoing)**
    a. Receive and send messages to community; Make the best effort to distribute announcements within two business days
    b. Archive past issues of the GEM Messenger
    c. Maintain an up-to-date GEM mailing list
3) Publish the GEMstone Newsletter
    a. Workshop Reports:
        i. After each annual (summer) workshop, ask all Focus Group Leaders and Research Area Coordinators (RAC) to prepare workshop reports before the due date as defined by the GEM bylaws. (**June-July**)
        ii. Solicit annual remarks/reports from Chair, Meeting Organizer, Student Representatives, and the NSF GEM Program Director (**August-September**)
        iii. Ask RACs to approve the Focus Group workshop reports; Send reminders to the responsible RACs for the overdue reports. (**August-September**)
        iv. Compile the report into the workshop reports issue of GEMstone (**August-October**)
        v. Distribute the workshop report issue to the GEM mailing list (**September-October**)
        vi. Post the workshop report issue at GemWiki (**September-October**)
    b. Focus Group Final Reports:
        i. When a Focus Group ends its five-year run, ask the Focus Group Leaders and the responsible RACs to prepare for a Focus Group final report following the guidelines in the GEM bylaws (**June or December,** depending on when the Focus Group held its last session at the Summer Workshop or at mini-GEM)
        ii. Remind the Focus Group Leaders about the due date of the report (**October or April**)
        iii. Ask the responsible RACs to review and approve the final report (**October or April**)
        iv. If the Focus Group chooses to publish its final report in GEMstone, compile the final report in the GEMstone Newsletter, and distribute

this Focus Group final report issue of the GEMstone to the GEM mailing list (**November or May**)
- v. Link or post the Focus Group final report at GemWiki (**November or May**)
- c. <u>Liaisons' Reports</u>:
  - i. Solicit reports from all GEM Liaisons for a deadline in April (**February**)
  - ii. Remind the due date of the Liaison reports (**March, April**)
  - iii. Compile the first draft of the GEMstone issue of Liaison reports; Invite the GEM Program Director to write a note on the Liaisons' report issue (**April**)
  - iv. Last call for Liaison reports (**May**)
  - v. Distribute the Liaisons issue of GEMstone to the GEM mailing list (**May**)
  - vi. Post the Liaisons issue of GEMstone at GemWiki (**May**)
4) Update and maintain the GEM website (GemWiki) **(ongoing)**
   - a. Ensure all pages are up to date (Steering Committee members, focus groups, meeting schedules, website for meeting, GEM bylaws, etc.)
   - b. Make new pages for new focus groups
   - c. Work with new focus group leaders and student representatives to give them edit permission
   - d. Communicate with focus group leaders to ensure pages are being updated
   - e. Post tutorial lectures following (or during) summer workshop
5) Help recruit new Steering Committee members **(as needed)**
6) Provide feedback from yourself and from the community and share with Chair/Vice Chair **(ongoing)**
7) Update this document at least once per year

## Proposing a Focus Group – Written Proposal

Proposal guidelines are given in the GEM
by-laws: http://aten.igpp.ucla.edu/gemwiki/index.php/GEM_Bylaws

The proposals should be no more than 4 pages in length, organized under the
following headings, and in the following order:

1) Topic (a description of the topic)
2) Timeliness (a statement on timeliness of the proposed FG)
3) Fit (how does the FG would relate to existing FGs... e.g., complement?, duplicate?)
4) Goals & Deliverables (specific goal and target deliverable*)
5) Co-chairs (names of the proposed co-chairs)
6) Research Area (the Research Area with which it will be associated)
7) Term (5 years or less from summer meeting date, e.g., 2017-2022)
8) Expected activities (for example topics of sessions or challenges)

*Deliverables can be GGCM modules, empirical relations that lead to modules,
solutions to specific science problems, challenges, data sets for validation and metrics,
or paper collections.

Details about the existing FGs are available on the GEM
website:http://aten.igpp.ucla.edu/gemwiki/index.php/GEM_Focus_Groups

Please keep in mind that on one hand we want to have active FGs operating under the
umbrella of each Research Area, but there is no upper limit to the number within a
research area. The GEM SC will consider all proposals received before the submission
deadline.

The FG proposals will be posted on the GEM Wiki website before the GEM
Mini-Workshop. There will be a late-afternoon session at the Mini- Workshop at which
the FG proposals will be presented and discussed in a forum open to the entire GEM
community. The SC will then meet after the mini-workshop sessions to decide which
proposals will be selected to become new GEM Focus Groups. If you are proposing a
FG, then please plan to give a 5-minute presentation in this session.

Please send FG proposals to the GEM Steering Committee Chair and cc'ed to the Vice
Chair.  Questions should be directed to the SC Chair or to the specific Research Area
Coordinator for your topic. The list of RA coordinators is available
at http://aten.igpp.ucla.edu/gemwiki/index.php/Organization_and_People.  Written

proposal deadlines are typically in early December, at least a week before the Fall American Geophysical Union meeting.

**Proposing a Focus Group – Oral Presentation**

An oral summary of the written proposal is to be delivered at the mini-GEM meeting preceding the Fall AGU meeting. The Steering Committee will likely ask questions – some may be clarification but others could be pointed.  Why now?
Is your team balanced?  What will you really accomplish?  How will you interact with other focus groups?  How are you distinguished from other focus groups?  Some may suggest additional activities.

The Steering Committee chair will provide guidance on how much time is allotted per presentation, but it is typically about 15 minutes.  The Steering Committee has a meeting immediately afterwards, and will inform the leaders of the selected focus groups within a day of the meeting.

**You have a new Focus Group – now what?**

Around February, the Meeting Organizer will contact all focus group leaders to determine how many sessions each focus group wants for the summer workshop. This includes any joint sessions.  Be judicious with your planning – don't plan more sessions than you need to accomplish your goals.  Don't have a joint session just for the sake of doing it – have clear science goals that you hope to accomplish that require the expertise of the other focus group(s).

"Plan" your sessions before the meeting, which should include determining the topics that your focus group wishes to discuss and what goals you hope to achieve.  This could involve inviting speakers, but please keep in mind the desire to have sessions run in the GEM workshop style (see the next session).  Be creative to encourage discussion and a genuine workshop.  It is also helpful to advertize the session topics so that interested people have a better idea of which sessions are of interest to them.

Communicate with your community (by submitting an announcement to the GEM newsletter and/or correspondences directly to your community) to inform them of the activities (perhaps implement a GEM listserv?).  Do this sufficiently before the poster deadline so that your community knows what will be happening at the session and whether they should submit a poster.  Also, post your announcement on the GEM website (you should have received edit permission when your focus group was selected).

After the meeting, your focus group is required to submit a written summary of the focus group activities to your Research Area Coordinators within about three months of the meeting.  This does not need to be a long document.  Many people ask people who gave talks or presented slides to write a two-sentence summary of their talk (specifically the main findings of the talk, something like the JGR/GRL "key points"), and the focus group organizers weave that into a summary.

A similar process is carried out before and at the mini-GEM meeting preceding the Fall AGU meeting.  No summary is required for mini-GEM activities.

**Tips for Running Discussion-Based GEM Focus Groups**

1) The ideal GEM session is discussion-led in workshop style (although the style of the discussion session and how it's implemented is **entirely up to the FG organizers**), with a goal of making genuine progress on unsolved problems of importance to the GEM community.
2) Informality and mutability are key.  Audience members are encouraged to give a few slides on a topic being discussed.
3) Encourage your members to sign up for posters (before the poster deadline) so that less people feel like they need to give a talk to contribute.
4) When people do sign up to give a presentation, remind them about GEM discussion-based style.
5) At the beginning of the session, remind the audience about GEM discussion-based style.
6) Ask a community member to give a summary ("scene-setting") talk of recent results or significant open questions (it's more effective for this person to not be a focus group leader) as a way to generate discussion.
7) Find two or more people that have opposing stances on an open question, and ask them to each give their side.  Follow this up with discussion among the audience.
8) Identify particular discussion topics for the sessions; don't solicit formal talks on these topics.
9) Set aside time during the session to brainstorm on open problems, future directions, approaches to solve these problems, potential for GEM Challenges etc.
10) Focus group leaders have the prerogative and responsibility to organize their sessions as they choose to encourage the GEM workshop style. This means that they are not required to let everyone speak that requests a talk.  For "accepted" presentations, it is helpful to collect the powerpoint slides before the session begins, partly to save time in switching computers, and partly to check that the talks are not excessively long AGU-style talks.