

Master's Project Kick-off **Class of 2018**

Casey Hankey, Group Project Coordinator
April 3, 2017

Information Sources

- Group Project Guidelines
 - Internal Services>Academic and Student Information>MESM GROUP PROJECTS and Eco-E PROJECTS
- Master's Project Public Presentations
 - **Friday, April 21, 1:00-6:30 pm**
- Past Reports, Briefs, and Posters
 - GP: http://bren.ucsb.edu/research/gp_past.html

Registration & Grading

- Register with your faculty advisor
 - **Spring 2017:** ESM 401A/402A (4 units)
 - **Fall 2017:** ESM 401B/402B (4 units) (IP grade)
 - **Winter 2018:** ESM 401C/402C (4 units) (grade applies to F17)
 - **Spring 2018:** ESM 401D/402D (2 units)
- Spend 10–12 hours/week on group project.
- Try to balance workload across quarters.
- A grade of **B** or better is required in **all** of ESM 401/402

Evaluations

*Extremely important that **every** group member participates and provides thorough and informative feedback*

- Peer & Self Evaluations
 - Completed at end of each quarter
 - Submit to faculty advisor & Group Project Coordinator
- Faculty Advisor Evaluations
 - Spring 2018: Submit to Group Project Coordinator

Project Management

- Group Project member roles:
 - Project manager (PM)
 - Financial manager (FM)
 - Data manager (DM)
 - Outreach manager (OM)
 - Editor (E)
 - Other? E.g. Internship coordinator (IC)
- Create a group **alias**
- By **April 7**: Report roles and alias to Group Project Coordinator Casey Hankey
- Attend relevant workshops

Workshops

- **Client Relations** (Dave Parker)
 - Tues, Apr 4 at 11:30 am – 12:30 pm
- **Data management & computing** (Compute Team)
 - required for DM & OM, date TBD
- **Research techniques** (Kristen LaBonte)
 - required for DM, recommended for all, date TBD
- **Project management** (2nd year MESM PMs)
 - Required for PM, 11:30 am – 12:30 pm, date TBD
- **Financial management** (Amanda Maffett)
 - required for FM, schedule individual meeting
- **Web design panel** (Lisa Leombruni, Casey Hankey)
 - Fri, Apr 28 at 1:00-3:00 pm (1424)
 - required for OM, recommended for DM

Website

- Each group must create (by Jun 16) and maintain a website for the duration of your project.
- Minimum content:
 - Name and emails of all group members
 - Group email address
 - Names and email of advisor(s)
 - Description of your project
 - http://www.bren.ucsb.edu/research/current_gp.htm

Group Meetings

- Meet at least once weekly as a group
 - Do not meet at 11:30 – 12:30 on weekdays
 - Designated student meeting spaces:
 - Visitors Center - business hours
 - Manzanita (BH 4024) - business hours
 - Bonsai (BH 4402) - all hours
- Students (**not** advisors) schedule meetings and reserve meeting rooms
 - Reserve meeting rooms on Google Calendar
 - Email scheduling@bren.ucsb.edu
 - if student rooms are booked
 - to reserve media equipment

Computer Work Stations

- One computer per group in Commons or BH 1011
- Computer assignment map will be posted
 - Internal Services>Academic and Student Information>MESM Group Projects and Eco-E Projects
- Tentative move-in date: **Monday, May 8**

Project Funding

- Each group has a budget of **\$1,300**
 - + **\$200** for printing.
 - Most group projects **can be done** on this budget
- If client has pledged additional funding (travel, supplies, ...) then client should pay these expenses directly, if possible.
- FM schedule meeting with Finance Team
 - learn financial procedures
 - obtain Project Code (Fund Number)

Contracts & Grants

- Money given to University for specific deliverables
- **Faculty** principal investigator (PI) writes proposal to funding organization
 - coordinates with Business Officer Kim Fugate
- **Must** be approved by the Office of Research (takes **at least** 1-2 weeks) **before** submission
- **Only** the Office of Research can accept contracts or grants
 - **You can't do this on your own!**

Contracts & Grants

- Proposal must have budget including
 - indirect costs (“overhead”)
 - budget justification
 - clearly articulated deliverables
 - start and end date
- Indirect costs are **53%**
 - e.g., client gives UCSB \$100 → you get only **\$47**

Gifts

- All gifts coordinated by Director of Development
Gift overhead is **6%**
 - e.g., client gives UCSB \$100 → you get \$94
- Active fundraising by students without guidance is **NOT** appropriate
- **Under NO circumstances** should you talk to anyone about giving a gift without first speaking with Assistant Dean for Development Lotus Vermeer!

Faculty Advisors

- Each group has one or two faculty advisors
 - GP: schedule **weekly** meetings with your advisor(s)
 - Eco-E: attend ESM 402A and meet with faculty advisor as needed.
- Your faculty advisor(s) will:
 - monitor progress
 - provide technical assistance & expertise
 - evaluate project
 - assign grades
- Allow **at least** a week for feedback on anything written
- No two advisors alike

Faculty Advisors

- During your first meeting (this week!) discuss:
 - Expectations
 - Project scope
 - Objectives
 - Meeting schedule
 - Dates for spring review meeting

GP Clients

- Each Group Project has one primary client.
 - Eco-E Projects do not have clients.
- Client is the reason for the project, so be responsive to client's guidance.
- Interact with client with absolutely the highest standards of professionalism.
- Client engagement depends on their availability and expertise.
- No two clients are alike.

GP Clients

- Meet with client & faculty advisor in week 2
 - Discuss project scope, objectives, deliverables, potential external advisory committee members, and internship, if relevant.
- When appropriate, invite your client to:
 - participate in spring & fall review meetings
 - attend defense in winter & public presentation in spring
- Write thank-you notes to client following review meetings and other milestones.
- **ACKNOWLEDGE** them frequently, privately and publicly (if they welcome this)

External or Technical Advisors

- Each group must engage 2+ external (GP) or technical (Eco-E) advisors
 - One additional advisor may be a Bren faculty member
- Interact with advisors with absolutely the highest standards of professionalism
- When appropriate, invite advisors to:
 - participate in spring & fall review meetings
 - attend defense in winter & public presentation in spring
- **ACKNOWLEDGE** them frequently, privately and publicly (if they welcome this)

PhD Mentors

- 8 PhD students volunteered to mentor Group Projects
- Not all groups have PhD mentors
- PhD mentor is expected to:
 - Meet with group and faculty advisor in week 1
 - Establish formal role/expectations with group and faculty advisor
 - Meet with group, faculty advisor and client in week 2
 - Schedule meetings with group, as needed
- PhD mentor expected to invest ~1 hour/week in spring
- PhD mentor may continue in fall and winter, if agreed upon by mentor, faculty advisor and group
- PhD mentor offers guidance, does NOT do group's work

Additional Resources

- Research skills
 - Librarian Kristen LaBonte (klabonte@library.ucsb.edu)
 - Holds weekly office hours at Bren (Mon, 12:30 – 1:30 pm)

Human Subjects

If you are conducting a survey or working with human subjects as part of your project:

- You **MUST** obtain approval (or an exemption) from the Human Subjects Committee (HSC).
 - Eco-E students have a blanket exemption.
- **All** group members & faculty advisor will need to take the Human Subjects Exam.
- Consider taking **ESM 269 Survey Design** in Spring 2017.
- Review Office of Research site: <http://research.ucsb.edu/compliance>

*It could be a **very big deal** not to be in compliance.*

Non-Disclosure Agreements

- You likely will need a **Non-Disclosure Agreement (NDA)** if your client (or other source) will provide you with data that are confidential or restricted.
- **Students may NOT sign an NDA under any circumstances.**
- To prepare an NDA, your client must work with the Office of Technology and Industry Alliances.
- If you need an NDA, please contact Group Project Coordinator as soon as possible.

Summer Internships

- If GP summer internships promised, you may identify one group member to be Internship Coordinator (IC).
- Client may ask students to apply for internship(s).
- If the decision lies with students, decide EARLY who will do the internship(s).
- IC and/or intern(s) will work with **Dave Parker & Kristi Birney** to coordinate internships.
- If internship is paid, client should pay intern(s) directly.

Internship Funding

- For **low-paying** or **unpaid** internships only
- Client or group (**not** Career Team) identifies qualified student for internship.
- Application for internship funding is **open**, apply as soon as you are confirmed to accept a low-paying or unpaid internship.
- Students are encouraged to apply as soon as they have received an offer. The application can be accessed through the Online Network.
- For more information: career@bren.ucsb.edu

Project Deliverables

Quarter	Group Project	Eco-E Project
Spring 2017	<ul style="list-style-type: none"> • Develop work plan • Work plan review meeting with Client and External Advisory Committee • Website • Self/peer evaluations 	<ul style="list-style-type: none"> • Create team partnerships • Develop business model • Eco-E Opportunity Analysis Presentation to EEAC • “Lessons Learned” to Eco-E Committee • “Lessons Learned” to External Judging Panel • Website • Self/peer evaluations

Project Deliverables

Quarter	Group Project	Eco-E Project
Fall 2017	<ul style="list-style-type: none"> • Fall review meeting with External Advisory Committee • Draft paper/outline • Self/peer evaluations 	<ul style="list-style-type: none"> • “Lessons Learned” presentation to EEAC • Technical Literature Review • Draft paper/outline • Self/peer evaluations

Project Deliverables

Quarter	Group Project	Eco-E Project
Winter 2018	<ul style="list-style-type: none"> • Final report • Project Defenses • Self/peer evaluations 	<ul style="list-style-type: none"> • Final report • Project Defenses • Competitions (TBD) • Self/peer evaluations
Spring 2018	<ul style="list-style-type: none"> • Poster • Project Brief • Final Presentation • Final website • Data/metadata • Faculty evaluation 	<ul style="list-style-type: none"> • Poster • Marketing collateral • Final Presentation • Final website • Competitions (TBD) • Faculty evaluation

** All students are **required** to participate in defense and final presentations.*

Authorship

- ALL group members **MUST** be acknowledged as co-authors on all deliverables produced by the group
- If you plan to publish results:
 - ALL group members must be invited to be co-authors
 - Consider inviting your faculty advisor to be a co-author
- The **only** exception is when ALL group members agree to a specific requirement for authorship
 - e.g., 2 units of ESM 596 in Spring 2018
 - in this case, some group members may elect **not** to be co-authors.

GP Review Meetings

- Plan Spring and Fall review meetings for weeks 8-10.
- Include all group members, faculty advisor, client (for GP), and external advisors.
- Invite participants **at least two weeks** in advance.
- Send meeting agenda and materials to all meeting participants **at least one week** in advance.
- If participants are not able to attend in person, make arrangements for teleconference (phone, Skype, etc.)
- Summarize feedback from spring review meeting and integrate into final work plan or business model.
- Send thank you notes to your client (for GP) and external advisors.

Project Defense

- Weeks 8-9 of winter quarter 2018
- Presented to advisor and 2+ other Bren faculty
- Opportunity to present and receive feedback from faculty on methods, analysis, results, and conclusions
- Focus on project's scientific content
- Open to all Bren faculty and students
- May invite client (GP) and external advisors

Public Presentation

- Spring quarter: **Friday, April 27, 2018**
- General audience, including faculty, students, potential employers, community, and family members
- Focus on substance, key findings, and significance
 - not methods and analyses
- Poster session and reception follows

Start Doing NOW

- **Read** the Group Project or Eco-E Project guidelines
- Schedule group meetings
- Define roles (PM, FM, DM, OM, IC, E)
- Start developing your group
 - learn about each other
 - do something together
- Educate yourself about your project
- Confirm client's funding commitments
 - work with Business Officer Kim Fugate

Problems

- Students have primary responsibility for solving problems
- Involve faculty advisors only after thorough efforts by group to solve problems
- Eco-E team partnership agreement has arbitration clause.
- If serious problems arise (rare), go to Group Project Coordinator or Assistant Dean
 - Written documentation is **essential** if an administrative solution is required
- Campus ombuds office: <http://ombuds.ucsb.edu>

Satie's Words of Wisdom

- Master's Project should not be all/overly consuming
- Issues with group members, advisor or clients may or may not arise
- This is one of the best preparations possible for your future career
- The work belongs to ALL group members
- Always reference others' work, data, models
- Have fun!

Work Plan Elements

- A. Title page
- B. Executive summary (1 pg)
- C. Objectives
- D. Significance of the project
- E. Background and literature review
- F. Data Management Plan
- G. Technical approach
- H. Deliverables
- I. Milestones
- J. Management plan
- K. Budget
- L. References

Objectives

- Focus on one to three objectives.
- Tie data, analyses, results, conclusions, and deliverables to objectives.
- Objectives may shift as you gain knowledge.
- Monitor whether you are on track or need to re-orient.

Background/Lit Review

- Find out what is already known about your topic.
- Locate relevant papers, reports, and data.
- Systematically search the technical literature.
 - Meet with Research Librarian Kristen LaBonte (klabonte@library.ucsb.edu)
 - Mondays, 12:30 – 1:30 pm in BH 3310
- Know the relevant material,
don't just store it on your computer.

Data Management Plan

- What data will you need?
- Are these data available?
 - Yes → Acquire them.
 - No → When and how will you get them?
- Describe the data and their standard formats (e.g., XML, ASCII, CSV, .shp, .gdb, GeoTIFF)
- What metadata are needed to understand/use the data?
- Do you have the right to redistribute your data?
- To what extent can the data be shared?
- For assistance: collaboratory@library.ucsb.edu

Technical Approach

- Describe overall strategy and specific tasks to meet objectives.
- Use the data (or imagine data have arrived)
 - What will you do with them?
 - Describe analyses you will conduct to address objectives.
 - Conduct preliminary analyses and describe *nature* of results.
- Will results meet objectives?

Deliverables

- Short list of products for your client.
- Some deliverables can be completed in the early stages of the project.
- Monitor your list of deliverables to stay on track.

Milestones

- Identify key tasks
 - Deliverables for your client
 - Academic products
 - academic defense
 - final paper
 - project brief
 - poster
 - website
 - data and metadata
 - public presentation
- Identify milestones (when tasks will be completed)
 - Review (possibly reorganize) milestones at end of each quarter.

Management Plan

- How will you organize and manage yourselves?
- When/where/how often will you meet?
 - Do **not** meet at 11:30 am – 12:30 pm on weekdays!
 - reserved for colloquia and career talks (and faculty meetings!)
 - “lunch hour” will change to 11:00am-12:15pm in Fall 2017
- How will you ensure critical tasks are completed?
- How will you document, catalog, and archive information?
- How will you interact with faculty advisors, clients, and external advisors?
- What do you and your advisors expect from each other?
- How will you resolve conflicts?