EDMAP Program
The Educational Component of the National Cooperative Geologic Mapping Program (NCGMP)

“EDMAP Proposal Preparation Webinar”

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EdMap Proposal Preparation

- What is NCGMP & EDMAP?
- Proposal Evaluation
- EDMAP Evaluation Criteria/Recommendations
- Best Practices
- Questions
- Deliverables
National Cooperative Geologic Mapping Program (NCGMP)

- Created in partnership with the Association of American State Geologists (AASG).
- Primary source of funds for the production of geologic maps in the US.
- Mission: To characterize, interpret, and disseminate a national geologic framework model of the Earth through geologic mapping and associated research in order to support the responsible use of land, water, energy, and minerals and to mitigate the impact of geologic hazards on society, thereby facilitating national security and economic growth through informed earth resource management.
National Cooperative Geologic Mapping Program (NCGMP)

- Three components that represent successful cooperation among federal, state, and university partners: **FEDMAP, STATEMAP, EDMAP**


- We produce high-quality, multi-purpose digital geologic maps and accompanying databases and research products to solve diverse land-use problems in high-priority areas.
NCGMP 2019

**FEDMAP**: 15 USGS regional geologic mapping and research projects, federal lands, several projects partnering with NPS

**STATEMAP**: 44 State Geological Surveys ($5.6M federal funds)

**EDMAP**: 24 University Agreements ($429K federal funds)
The EDMAP Program

- The educational component of the NCGMP
- Purpose - To train the next generation of geologic
- Primary Goal: To get geology students out in to learn the skills of geologic mapping!
- One-year, mentor-guided program designed to teach students geologic mapping techniques through rigorous field mapping.
- Cost-shared 1:1
- Began in 1996 as a cooperative agreement program.
- EdMap has funded 821 PI’s at 165 Universities and a total of 1,290 students
- Primary deliverable: Student first-authored geologic map

Photo from Karl Wegmann, NCSU, EDMAP 2014
The EDMAP Program

- Eligibility – Earth Science Faculty at US Colleges and Universities + Puerto Rico.
  - Faculty with mapping experience.
  - Upper-division Undergraduates and Graduate students interested in geologic mapping.
  - To qualify students must have relevant geology coursework/training prior to the proposed project.
- 1 to 1 matching funds are required.
- FY19 program level of funding was ~$429K.
- Limited to $17,500 per graduate primary mapper and $10,000 per undergraduate primary mapper.
- We typically fully fund about 20-30 proposals per year.
- Competitive awards.
EDMAP FY19 Update

- 24 Awards, 28 students, mapping in 18 different states
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EDMAP: How does it work?

- Faculty PI’s that are interested in the program select a student candidate to be the Primary Mapper.
- PI coordinates with the student about the research and mapping plan.
- PI gets a commitment from the student.
- For safety concerns, we recommend choosing a mapping assistant as well.
- Coordinate EARLY with:
  - University Sponsored Programs Office.
  - State Geological Survey or USGS Project Chief.
- Faculty PI writes the proposal and is responsible for all administrative aspects of the project.
FY 2019 EdMap Program Announcement

- To apply, search for opportunity number "G20AS00005" or “EDMAP” at Grants.gov.
- Read Program Announcement carefully and contact us with any questions.
- Proposals are due on November 19 by 3:00 PM (EST).
- Late Proposals are not accepted.
- Work with your Sponsored Programs office EARLY.
Downloading EDMAP PA from Grants.gov

- Search by G20AS00005 (Opportunity Number) or EDMAP (Keyword or Title)
- Once Grant Opportunity is open, to get to the program announcement:
  - Click on Blue Tab “Package”
  - Click on “Preview” under Actions in the gray bar
  - Click on “Download Instructions” at the end of the blue bar beginning with “Package Forms” (right above where Mandatory Forms are listed)
Proposal Evaluation

- EDMAP Proposal Evaluation Panel
  - 2 USGS Geologists with geologic mapping background
  - 4 University Professors involved in geologic mapping
  - 2 State Geologists

- Proposals are evaluated based on established criteria
- Competitive process: not all proposals are funded.
Proposal Evaluation Criteria

- Coordination (10 points)
- Justification (20 points)
- Technical quality (30 points)
- Mentorship (25 points)
- Budget (15 points)
Criterion 1: Coordination (10 Points)

- Has the PI discussed or planned their mapping project with the appropriate State Geologist or USGS Project Chief?
- Is a letter of support from the State Geologist and/or USGS Project Chief included with the proposal?
- What is the degree of this coordination?
- Are geologists from other organizations, such as the USGS or State Geological Surveys, included in the project?
Criterion 1: Coordination (cont.)

- You must contact and include a letter of support or acknowledgement from the State Geological Survey or USGS Project Chief in the state in which you are going to conduct your mapping project.
  - A list of all State Geologists and USGS Project Chiefs are included as Attachments D & E in the EdMap Program Announcement.
  - Coordinate and request for letters early!
  - State Geological Surveys have published EDMAP maps in the past

- We are now requiring that in addition to a letter of support, the deliverable maps and reports from all EDMAP projects be submitted to supporting State Surveys and/or USGS Scientists as well.
Criterion 2

Justification (20 points)

- How well does the proposed geologic mapping project answer any significant scientific questions?
- How well does the mapping project address a problem that has any significant societal value?
- How well does the proposed mapping address Secretarial priorities and the goals of the National Geologic Mapping Act?
Goals of the Geologic Mapping Act

• Determine the Nation’s geologic framework through the systematic development of geologic maps; such maps will contribute to the National Geologic Map Database.

• Develop complementary national databases (e.g., geophysical and paleontologic databases) that provide value-added information to the National Geologic Map Database.

• Apply cost-effective mapping techniques that assemble and disseminate geologic-map information, and that render such information of greater application and benefit to the public.

  ▪ Develop public awareness of the role and application of geologic-map information to the resolution of national issues of land use management.
Goals of the Geologic Mapping Act, Educational Component

The geologic mapping program shall include a geologic mapping education component for the training of geologic mappers, the objectives of which shall be—

- to provide for broad education in geologic mapping and field analysis through support of field studies; and

- to develop academic programs that teach students of earth science the fundamental principles of geologic mapping and field analysis.
DOI Secretarial Priorities

- Create a conservation stewardship legacy second only to Teddy Roosevelt.
- Sustainably develop our energy and natural resources.
- Restore trust and be a good neighbor.
- Ensure tribal sovereignty means something.
- Increase revenues to support the Department and national interests.
- Protect our people and the border.
- Strike a regulatory balance.
- Modernize our infrastructure.
- Reorganize the Department for the next 100 years.
- Achieve our goals and lead our team forward.
Criterion 3

Technical quality (30 points)

- Are the scientific objectives clearly stated?
- How well does the proposal stress what is important and new?
- How does the proposal address necessary support data, such as paleontological or geochemical information, if that data is critical to the success of the geologic mapping?
- How well does the mapping strategy focus on developing student mapping skills?
- Does the student appear to be capable of accomplishing the objectives stated, and in the time allowed?
- Is the proposal well-written and concise?
Criterion 4

Mentorship (25 points)

▪ What is the level of faculty mentoring and will the faculty member be spending adequate time advising the student on geologic mapping techniques and other aspects of the project?
▪ How well does the proposal address details on mentoring activities including time before, during, and after the fieldwork?
▪ What is the degree of communication between the Principal Investigator and student geologic mapper?
▪ If there are assistant mappers, are they being mentored as well?
Criterion 5

Budget (15 points)

- Is the proposed budget commensurate with the level of effort required to accomplish the objectives? Is the cost reasonable?
- Are non-Federal funds or in-kind services available to at least equally match the requested Federal funding amount?
- Is the budget designed primarily to get the student into the field to learn and perform geologic mapping?
- Is the amount of faculty advisor support modest and reasonable?
- Is the budget well itemized, explained and justified in detail?
Budget: Funding Caps

- Limited to $17,500 per graduate primary mapper and $10,000 per undergraduate primary mapper.
- PRIMARY MAPPER- Lead student mapper on an individual project, responsible for his/her first-authored geologic map deliverable.
- A proposal may request funding for multiple primary mappers, but each mapper is responsible for a separate first-authored map (i.e. multiple deliverable maps required).
- EDMAP funds are not intended for field camps.
Budget: Recommendations

- Be specific in budget descriptions or when itemizing a budget—don’t use ‘etc.’ and avoid generalizing.

- Costs for mileage – make sure that they are reasonable. When creating your mapping strategy, do your best to show efficiency when you can.

- Rate of compensation:
  - In one column provide the salary as a rate (annual salary, pay amount per hour).
  - In another column tell us how many months, hours, or percentage of the year the student(s) will be working on the project.

- If you use a generic “units” column, then please annotate the actual units used in the row of the item.

- Budget justification costs and budget line item costs must be consistent with the mapping strategy.
Budget: Explanation and Justification

- This section should explain and justify, in detail, your budget. It is important that you itemize your supplies, laboratory and drilling expenses if applicable, travel expenses, and any unusual costs in this section.

- Drilling and analytical laboratory expenses are capped at no more than 20% of your total costs.

- Non-allowable Expenses:
  - Purchase of equipment.
  - Software and maintenance contracts.
  - Tuition, TA’s and course fees.
  - Travel and other expenses for professional meetings.

- Do not roll up costs – they must be itemized!
Budget: Matching Funds

- **Salary**: Faculty, student, RA’s, field assistants.
- **In-kind support**: For example, the time a co-advisor from outside the institution spends with the primary student or contracting costs supporting the project. Information documenting amounts for in-kind support should be included.
- **Field expenses, analysis costs, drilling costs**.
- **Cannot match with other Federal funds**.
- **Cannot use tuition as match**.
Best Practices

- Read the Program Announcement.
- Follow the Proposal Format Instructions and include the appropriate information in each document or section.
- Print out the Proposal Evaluation Criteria and have it with you whenever you are writing the proposal.
- Be sure that you convey to the Proposal Evaluation Panel that the proposal answers each criteria well.
- Bundle all documents into a single PDF for submission.
- Always include an overview/index map of your mapping study area for context at the beginning of your proposal (include corner coordinates).
- When creating the budget, if you have a question about what are allowable costs and what are not allowable - CALL ME!
Best Practices (cont.)

- Proofread your proposal.
- Adhere to the page limits (10 pages for technical section) and be concise.
- Triple check your budget numbers; ensure 1:1 match.
- Write the proposal as though the Panel does not know who you are or that you’re an excellent mapper and mentor and have done this for your entire career.
- Be Clear- It is the responsibility of the PI to describe well what they propose to do and not leave it to the Panel members to read between the lines or to make assumptions.
- Graphics – only include graphics and charts that will benefit your proposal. Refer to them in the text and label them appropriately.
Best Practices (cont.)

- The focus is on mentoring.
- If a mapping assistant is also included, describe briefly what they will be doing and learning as well.
- If the PI has received prior EDMAP funding in recent years, discussion of previous projects, results and impacts of previous results, and if/how this work relates to the work being proposed should be included.
- If the primary mapper is not yet identified, be sure to include criteria you will use to pick your ideal student mapper for the project.
Data Management Plan

- Proposal must include a Data Management Plan (DMP).
- DMP should be less than 2 pages (not included in the 10 page limit).
The bottom line…

• Write clearly, thoroughly, and concisely.
• Proofread all documents
• Thoroughly check your budget calculations and ensure that there is a 1:1 Fed/University match
• Ensure the amount requested is commensurate with the number of primary mappers proposed
• Submit your proposal on time!
Questions?
EDMAP Deliverables

- Principal Investigators are responsible for ALL Deliverables
- EDMAP deliverables include:
  - Transmittal letter
  - Technical report describing your year-long mapping project. The student’s Thesis is acceptable for this requirement.
  - Digital version of the student-authored geologic map that you proposed for each primary mapper
    - Create and submit a completed map as a PDF or GeoPDF file
    - The names of all students funded through EDMAP must be the primary authors of the map and annotated as such.
    - Include acknowledgement of the USGS NCGMP EDMAP Program (see Program Announcement for appropriate acknowledgement)
EDMAP Deliverables

- Due that last day of the agreement project period.
- No-cost extensions (up to 90 days) and changes of scope/budget ONLY permitted if requested PRIOR TO 30 DAYS before the end of the project, and are permitted at the Program Officer’s discretion.
- Late deliverables may cause ineligibility for future grants.
- Deliverables submitted to Program Officer AS WELL AS supporting State Geologists or USGS Project Chief
EDMAP Deliverables

• We would like to post all EDMAP deliverable geologic maps on the USGS National Geologic Map Database (http://ngmdb.usgs.gov).

• In addition to the map, we can archive any source files (i.e. ArcGIS, Illustrator, etc.) for future use by other geologists.

• If you do not want your student’s map deliverable posted on the NGMDB website, please indicate so in your transmittal letter.

• NCGMP-supported resources for cartography and database design are available at: https://ngmdb.usgs.gov/Info/standards/

• We strongly encourage the use of the GeMS standard for published geologic maps. https://ngmdb.usgs.gov/Info/standards/GeMS/
Get involved with EDMAP!

- Best Student Geologic Mapping Competition
  - Annual Session at the GSA Annual Meeting
  - EDMAP students have participated (and won!) in the past
- Encourage your students to create EDMAP project blogs, websites, videos and more, & share these with the Program Office!
- Publish your map!
- EDMAP Factsheet: https://pubs.usgs.gov/fs/2010/3088/
- EDMAP success stories- please share.
Best Student Map Competition - GSA Annual Mtg
(Session T80- Tuesday afternoon, Sep. 24, Hall AB)

1st Place: Sara Stotter / University of Montana (EDMAP Student)

2nd Place: Alexis Del Pilar-Martinez / Universidad Nacional Autonoma de Mexico

3rd Place: Andrea Richardson / Vanderbilt University (EDMAP Student)

2018 Winners
EDMAP Contact Information

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Thank You!