

## **SAGE Application Instructions:**

**A complete application package includes:**

- **Application Form** (PDF or Word document)
- **Letter of Interest** (PDF or Word document, about one page); include a description of your educational background, courses and experience that have prepared you for participating in SAGE, your career goals, and why you are interested in SAGE.
- **Two (2) References** from academic advisor, professor for courses, academic or research supervisor (see reference form; PDF or Word document)
- **Complete Transcripts** (all applicants; unofficial copies are acceptable) for all colleges or universities that you have attended. For your identity protection, please mark through/black-out any Personal Identifying Information (PII) such as address, SSN, etc.
- **Selection** – selected applicants will be required to pay a registration fee and submit proof of health insurance valid in the United States. US undergraduate students and PRs: travel support (up to \$750) will be automatic if accepted, and a registration fee of \$100 will be required. A \$500 registration fee is required from U. S. and foreign graduate students, foreign undergraduates, and professionals. Room and board are provided by the program for all students and professionals.

## **Application Links:**

**Application Instructions (this document):**

<http://web.ics.purdue.edu/~braile/sage/ApplicationInstructions.doc>

<http://web.ics.purdue.edu/~braile/sage/ApplicationInstructions.pdf>

**Application Form:**

<http://web.ics.purdue.edu/~braile/sage/ApplicationForm.doc>

<http://web.ics.purdue.edu/~braile/sage/ApplicationForm.pdf>

**Reference Form:**

<http://web.ics.purdue.edu/~braile/sage/ReferenceForm.doc>

<http://web.ics.purdue.edu/~braile/sage/ReferenceForm.pdf>

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## **More about SAGE:**

### **What SAGE offers**

- Teaches modern geophysical exploration techniques: seismic reflection and refraction, gravity and magnetics, electromagnetics (including magnetotellurics), and electrical resistivity
- Involves extensive hands-on field experience
- Integrates geophysical methods to solve real geological problems
- Addresses geological problems of research and practical interest
- Utilizes multi-institutional resources and expertise
- includes classroom instruction and supporting lectures by academic and industrial professionals
- Incorporates computer processing and modeling
- Provides experience in data synthesis and report preparation

- Permits university credit to be earned publishes its results in peer-reviewed journals
- Open to undergraduate and graduate students
- Open to U.S. and foreign participants

### Who attends SAGE

- Students in geophysics, geology, physics, math, and related fields wishing intensive training in geophysics or considering careers in the Earth sciences
- Professionals, including college and university faculty and postdoctoral fellows desiring professional enhancement experience
- Minimum of one year (two semesters or three quarters) of college physics, i.e, though Electricity and Magnetism. Minimum of three semesters of calculus, four preferred.
- Structural geology and introductory geophysics recommended but not required.

### What students gain from SAGE

- Learn seismic reflection, refraction techniques
- Get to the gravity of the matter
- Familiarize yourself with electromagnetic methods
- Apply geophysics to environmental or archaeological problems
- Meet other students with similar geophysical interests
- Introduce yourself to career opportunities - make contacts with industry representatives
- Study the tectonics of an active continental rift

### Who qualifies

- Undergraduate students who are U.S. citizens or permanent residents and have completed their *junior* year and the requisite physics and math courses before SAGE
- U.S. *graduate* students in all stages of their careers
- International students and professionals

### Prerequisites

- Students that have successfully completed a minimum of one year (two semesters or three quarters) of physics (through electricity and magnetism), and a minimum of three semesters of calculus (four preferred).
- Students with a quantitative background and some introduction to geophysics, though they need not be geophysics majors
- Math and physics majors, and other students considering careers in geophysics
- Coursework in structural geology and/or introductory geophysics is recommended but not required

### Additional Information:

Baldrige, W.S., Braile, L.W., Biehler, S., Jiracek, G.R., Ferguson, J.F., Hasterok, D., Pellerin, L., Bedrosian, P.A., McPhee, D.K, and Snelson, C.M., 2012, SAGE at 30: *The Leading Edge*, 31, no. 6, 702-708.

Baldrige, W. Scott, Paul A. Bedrosian, Shawn Biehler, Lawrence W. Braile, John F. Ferguson, Matthew Folsom, George R. Jiracek, Shari A. Kelley, Darcy K. McPhee, Louise Pellerin, and Catherine M. Snelson, Summer of Applied Geophysical Experience (SAGE): Training for our future geoscientists, *The Leading Edge*, 1214-1219, October, 2015.

Braile, L. W., Field Geophysics at SAGE: Strategies for Effective Education (invited paper; [http://serc.carleton.edu/files/NAGTWorkshops/field/workshop10/field\\_geophysics\\_sage\\_strategi.v2.ppt](http://serc.carleton.edu/files/NAGTWorkshops/field/workshop10/field_geophysics_sage_strategi.v2.ppt)), Teaching Geoscience in the Field in the 21st Century, Workshop, Montana State University, Bozeman, MT, August, 2010.

Braile, L.W., W.S. Baldrige, G.R. Jiracek, S. Biehler, J. Ferguson, L. Pellerin, D.K. McPhee, P.

Bedrosian, C.M. Snelson, D. Hasterok, Field Geophysics at SAGE: Strategies for Effective Education, (2011), 2011 AGU Annual Meeting, San Francisco, CA. (PPT: <http://web.ics.purdue.edu/~braile/sage/FieldGeophysics.pdf>)  
Braile, Lawrence W., W.S. Baldrige, L. Pellerin, J.F. Ferguson, P. Bedrosian, S. Biehler, G.R. Jiracek, C.M. Snelson, S. Kelley, and D.K. McPhee, *Successes and Challenges in the SAGE (Summer of Applied Geophysical Experience) REU program*, poster presented at the Fall AGU meeting, San Francisco, December, 2014. (Poster: <http://web.ics.purdue.edu/~braile/sage/SAGE.AGU.2014.REU.pdf>)

Braile, Larry, W. Scott Baldrige, George Jiracek, Shawn Biehler, John Ferguson, Louise Pellerin, Darcy McPhee, Paul Bedrosian, Cathy Snelson, Shari Kelley, SAGE - Summer of Applied Geophysical Experience Learning Geophysics by Doing Geophysics for 32 Years, poster presented at Society of Exploration Geophysicists annual meeting, Denver, CO, October, 2014. (Poster: <http://web.ics.purdue.edu/~braile/sage/SAGE.SEG.2014.Poster.pdf>)

**Sage web page:** <http://www.sage.lanl.gov/> (this web page is being updated and will be moved to a Purdue University web address)