UNIVERSITY OF NOTRE DAME

Center *for* STEM Education

STEM Teaching Fellows
2022-2023 Application Guide

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Application Guide

The Notre Dame STEM Teaching Fellowship forms STEM teacher leaders who catalyze rigorous, equity-centered, and sustainable STEM learning cultures for their students and school communities. Teachers must apply to the Fellowship as part of a school team. Please follow this application guide in order to complete each step and successful submit your application as part of your school team.

Please submit all information via the application page:
https://stemeducation.nd.edu/apply

Complete the Online Application between November 1st, 2022 through March 1st, 2023.

☐ **Step 1:** Gather application information and prepare short answers to questions

☐ **Step 2: Initial Applicant** submits his/her application. The Initial Applicant submission automatically triggers emails to Teammates and Principal/Administrator

☐ **Step 3:** Teammates submit their application by clicking on the link received after the Initial Applicant submission

☐ **Step 4:** Principal/Administrator submits recommendation

March 6-17, 2023

☐ **Step 5:** Video conference interviews for select teams

March 31, 2023

☐ **Step 6:** Decision notifications are communicated

Please direct questions to stemfellows@nd.edu or call 574-631-3165

Team Formation Self-Reflection Questions

The Notre Dame STEM Teaching Fellowship provides professional development for individual teachers who are part of a school team. This team structure is unique when compared to other professional development experiences and is critical to making lasting impact within school communities. The thoughtful formation of the **3-5[1] person** team is a critical part of the application process. As your school builds its team, we recommend that you discuss the following questions. After your discussion, if questions persist, please contact us at stemfellows@nd.edu.

⇒ **Which teachers in your school are most responsible for math and science courses in grades 4 – 8?**
The Fellowship addresses all aspects of the STEM disciplines but is particularly focused on the content and teaching of middle grades mathematics and science. We highly recommend that your middle school math and science teachers be part of, or comprise, your whole team.

⇒ **What is the role of the technology/computer teacher in your school?**
Technology is a critical aspect of effective STEM classrooms. However, our program may not effectively serve some technology teachers. All teachers on the team must be a teacher of record for at least one STEM course during the school day. Courses focused on the teaching of typing, mouse skills, word processing, or other productivity apps would not be well served in this program. IT coordinators would also not be well served. Our program is better suited for computer science teachers who focus more on programming/coding AND integrate math or science into their courses.

⇒ **Which STEM teachers in your school are positioned to be leaders?**
The STEM Teaching Fellowship looks to build teacher leaders who are excellent in their classrooms and help transform their school's STEM culture and practice. Highly respected teachers who meet the other disciplinary requirements may be crucial to a team's success.

⇒ **Do you have any eligible early career teachers?**
Early career teachers are particularly primed for growth. Prospective teams with teachers in their 2nd – 9th year of teaching will be given preference during the selection process. Teams with teachers in their first year of teaching should delay application for at least one year.

⇒ **Does your school have any integrated STEM courses?**
STEM learning can happen in many places. Engineering teachers (e.g. Project Lead the Way) or Integrated STEM teachers (i.e. stand-alone teachers focused on a STEM problem-based learning approach or teachers who have a designated course rooted in the STEM disciplines such as those taking place in a STEM lab or Innovation lab) are welcome to apply with the team.

As mentioned above, all team members must have daily interaction with students in a STEM-related course. While one might find students using computer aided design in an art class or tinkering in a maker space in the library, art teachers, librarians, media specialists, after-school robotics coaches (who are not also teachers of a STEM subject) or similar non-STEM specific teachers are not eligible to be a part of the formal STEM Teaching Fellows team. However, STEM Fellows are strongly encouraged to engage these and other teachers at their school in STEM efforts throughout and beyond their time in the program.

⇒ **Can an administrator be a part of the team?**
Administrators are not allowed to be part of the team unless they also have an instructional role in one of the STEM disciplines. We do encourage strong and ongoing communication with administration, and also provide specific opportunities for these discussions to take place during the course of the Fellowship.

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[1] Teams of 5 will be considered with permission, based on school context.

STEP 1: Gather Information
Read over this application guide and assemble your team. Remember that you MUST apply as a team of 3-5 teachers. Teams of 3 or 4 are optimally sized, although teams of 5 will be considered if there is a strong rationale for this sized team. Your goal is to put together the strongest team possible.

STEP 2: The Initial Applicant
The application process is triggered by the **submission** of the initial applicant's information at stemeducation.nd.edu/apply. The initial applicant provides the names and contact information of the teammates and principal. Upon submission of the initial application, the other teammates and the principal receive links, through email, to their application materials. This process ensures that information for the team is all linked.

Information that the initial applicant entered about teammates and principals will be pre-populated in the subsequent applications. The teammate application is identical to the initial applicant with the exception that they do not have to provide previously entered information.

Below is a guide to the application questions for initial applicants and their teammates:

Part 1: Applicant Information
Applicant Background Information
First Name:
Last Name:
Home Address:
City:
State:
Zip:
Cell Phone:
Preferred Email (accessible year-round):
Secondary Email:

Part 2: School Information
School Name:
School Address:
School City:
School State:
School Zip:
School Phone:
District/Diocese/Charter Network Name:

Principal First Name:
Principal Last Name:
Principal Email:

Year school was founded:

School Type:
- Catholic
- Charter
- Private (Religious Non-Catholic)
- Private (Non-Religious)
- Public
- Public (Magnet)
- Other

School Setting: (Urban/Suburban/Rural):

School Enrollment:

Approximate Percentage: Students of Color Served at the School. (to nearest 10% on sliding scale):

Approximate Percentage: Students Qualifying for Free or Reduced Lunch. (Even if your school does not receive funds for the free lunch program, please estimate the percent who would normally qualify for FRL):

Has a team from your school previously applied to the Notre Dame STEM Teaching Fellowship?

Part 3: Team Information
Not including yourself, how many additional teammates do you have?

(You will need this information for each teammate)
Team Member First Name
Team Member Last Name
Team Member Email (Please ensure you enter this information correctly as it triggers their reception of the application)
Is this teammate a teacher at your school (Yes/No)?

Part 4: Your Teaching Information

Instructional Load
What courses/grade levels (list up to 6 of the most relevant courses) do you plan on teaching in 2023-2024
If a class contains multiple grade levels, select the grade level that makes up the majority of the class.

You may make any helpful notes in the textbox below.

	Name	**Course Subject**	**Grade Level**	**Approximate Minutes/Week**
Course 1				
Course 2				
Course 3				
Course 4				
Course 5				
Course 6				

Please describe the nature and content of any STEM-related courses that are not traditional math or science courses:

Content Area for STEM Teaching Fellows
STEM Teaching Fellows are supported by an instructional coach with a math or science background. Although you may teach STEM-related courses that go beyond math or science, please select which disciplinary track would BEST support your growth as a STEM teacher based on which discipline most closely aligns to your instructional load (select one).
- ☐ Science
- ☐ Math
- ☐ Computer Science/Technology
- ☐ Integrated STEM
- ☐ Other

Content Area Justification: Please briefly explain your reasoning for choosing your primary content area (i.e. "I only teach science", "I teach science and math, but I have more sections of math"). If you selected Other, please justify your rationale for applying to the Program.

Please indicate the number of years you have been a teacher of record (including the 2022-2023 school year).

Please indicate the number of years you have been a teacher of record at your current school (including the 2022-2023 school year).

Part 5: Educational Background
Undergraduate Degree(s):
Undergraduate Major(s):

Graduate Degree(s):
Graduate Major(s):

Teacher Education Pathway:
Please select the response that best describes your pathway. You will be able to describe this pathway briefly in the next question.

- ☐ Undergraduate Pathway (e.g. degree program)
- ☐ Traditional Master's Degree Pathway
- ☐ Alternative Teacher Preparation Pathway (e.g. ACE, TFA, etc.)
- ☐ Second Career Certification
- ☐ Other

Please describe your pathway to teaching (where you were trained and a brief description of your program).

Do you have a current teaching credential or license?

Are you a second career teacher?
    If yes, please describe your professional experiences prior to entering education as a second career (up to 500 words).

Part 6: Demographics

Gender (Required for housing considerations):
- ☐ Female
- ☐ Male
- ☐ Prefer not to say
- ☐ Other _____

Optional: With what ethnicity do you identify?
- ☐ Hispanic/Latinx
- ☐ Not Hispanic/Latinx
- ☐ Not Sure
- ☐ Other _____

Optional: With what race(s) listed below do you identify? Check as many as apply.
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black/African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Not Sure
- ☐ Other_____

How did you hear about the Notre Dame STEM Teaching Fellowship?
Check all that apply

☐ Conference/Professional Organization
☐ District/Diocesan Office
☐ Email Listserv
☐ Principal
☐ Senior STEM Teaching Fellow (graduate of the program)
☐ School Colleague
☐ STEM Teaching Fellows Recruiter (Martha Downer-Assaf)
☐ Twitter/Facebook/Social Media
☐ Website
☐ Other: Please explain

Part 7: Applicant Short Answer Questions
The following open-ended questions are very important to the selection process. We consider these responses as a significant portion of the application. Please submit individual responses for each of the following questions in the space below. Responses for each question should be approximately 2 paragraphs (~200 words).

You may find it easiest to copy and paste your responses from another document.

1. What motivated you to become a teacher in the STEM disciplines?

2. Why do you believe the Notre Dame STEM Teaching Fellowship program would be valuable to you at this point in your career?

3. Describe the ways you have worked with the other people listed on your school team. In addition, please specifically describe your group dynamic and how it will contribute to your success as a team.

4. Please describe one way in which you have acted as a leader within your school community.

5. Creating equitable STEM learning environments is a key component of the Fellowship. Please describe how you think that teaching a STEM discipline can address issues of equity in your school or broader community.

Part 8: Commitment Acknowledgement
The STEM Teaching Fellowship is an exciting and intensive professional learning opportunity. Fellows receive approximately 100 hours of professional development hours annually, which ultimately requires a commitment of even more time dedicated to some of the tasks below.

By checking each item below, I acknowledge that I have read and will commit to the following terms of the Notre Dame STEM Teaching Fellowship.

☐ Attend the orientation retreat in May 2023 via Zoom (~2 hours).

☐ Attend and fully engage in two weeks of summer, residential professional development (Summer Institute) on campus at the University of Notre Dame for three consecutive years (note: summer 3 includes only 1 week of PD).

☐ Attend and fully engage in the weekend mid-year (January or February) retreat/professional development, taking place off campus from Notre Dame in Years 1 & 2.

☐ Collaborate in a school-based team to help shape STEM engagement within your community.

☐ Participate in the online community with other STEM Fellows and the ND Center for STEM Education.

☐ Capture, upload, and annotate short videos of classroom practice and other teaching artifacts throughout the school year, beginning with a video capture prior to the first Summer Institute.

☐ Administer pre- and post- measures of student outcomes in designated content area.

☐ Complete all assigned surveys and evaluations to help measure impact and improve the program.

☐ Continue to teach at least one STEM course as teacher of record at your current school (with which the school team is formed) for the duration of the Fellowship (2 academic years). If you leave your school following a Summer Institute, but prior to the start of the school year, you will not receive your stipend and you will have to repay your travel costs.

STEP 3: Teammate Application Submission
Teammates entered by the Initial Applicant will receive a personalized link to their application. They will fill out and submit the same application as the Initial Applicant.