Learn Deep Fellows

Program Summary

Learn Deep's Fellows Program is a community based approach to equip and prepare Milwaukee area teachers to provide K-12 students with real world Learning Experiences that develop the talents students need to go out into the world. This includes the abilities to work effectively as a team to understand a problem, prototype and test potential solutions. In the digital age, this also includes understanding how to leverage data and technology to better understand the problem at hand or as part of a potential solution. This presents a unique opportunity to introduce computational thinking and tools in the context of issues that have meaning for students.

The Fellows Program will take cohorts of educators through a three year journey to develop, pilot and refine real-world challenges for students. Fellows will work in collaboration with community partners from industry, higher-ed, and nonprofits to create interdisciplinary Learning Experiences that allow students to think deeply about the problems they take on. These experiences will expose students to tools and modes of thinking that allow them to address real-world challenges. As important, students will have the chance to work with industry professionals in a variety of roles that intersect with the challenges students take on.

The first cohort of Fellows will kick off in May, with work over the summer to envision and design projects which will run over the course of the 2021-22 school year. A new cohort of teachers will launch each spring

Goals

The Fellows Program has three key goals:

- Engage a diverse mix of students in the use of tools and modes of thinking to explore and take on real-world problems that have meaning for them;
- Equip a diverse set of teachers with the skills, experience and connections that allow them to carry on this work outside of the Fellows Program;
- Deepen the network of Milwaukee area educators inspired to deliver collaborative, authentic Learning Experiences so that more educators are both willing and able to do so.

Fellows Commitment

The program expects a three year commitment from Fellows that will include summer work to envision and design a project of meaningful scope their students will take on during the following school year.

In addition to the design and implementation of these projects, Fellows are expected to share their work, and experience with colleagues and community members outside of the Fellows Program. This includes a chance for students participating in a Fellows project to share their work with their school community.

Fellows will also be expected to participate in at least four Collab Lab sessions over the course of each school year. Learn Deep's Collab Labs bring educators and community partners together to explore opportunities to engage students in authentic work. These evening sessions use workshop format and small group discussions to explore a given topic. Collab Labs will focus on different aspects of design or implementation of Fellows projects. They provide a chance not just to share the work, but solicit advice and ideas from colleagues and community members who are not part of the Fellows Program.

School Commitment

While nothing interesting happens in a classroom without a teacher willing to say yes, it is difficult for that work to spread without the support of school leadership. Applicants are asked to include a letter of support from the school or district leadership. These letters should include an acknowledgement of the time commitment for teachers involved in the program and the support they will need in order to bring their projects to life for students. For each teacher enrolled in the fellows program, schools are expected to pay an annual fee of $750 as demonstration of that commitment.

Focus Area

Each year, the Fellows Program will adopt 1 broad domain theme for that year's cohort to work with. The theme, together with the technical and the community components forms the basis for multi-disciplinary Learning Experiences the teams will design.

Year 1 (May 2021 - June 2022)

The focus area for the first year's projects is 'water'. This might include water pollution, technology, public health or equity questions related to access, or any other water related issue that a teacher is passionate about exploring with her students. Under that broad umbrella, Fellows will work with community partners to identify a project focus that will engage and challenge students.

Year 2 (May 2022 - June 2023)

Theme to be confirmed February 1, 2023

Year 3 (May 2023 - June 2024) and subsequent years

Theme to be confirmed February 1, each subsequent year.

Eligibility/Selection Criteria

The Fellows Program is open to 6th, 7th, and 8th grade teachers in Milwaukee or Waukesha County schools (public, private, charter) in this inaugural year of the Program. Elementary and high school teachers may apply as part of a joint application with a middle school teacher. Learn Deep plans to expand the number of fellows, grade level targets, and geographic footprint of the Fellows Program in subsequent years.

The program will accept a total of 12 teachers into the first Fellows cohort.

Preference will be given to:

- Educators who serve a diverse/disadvantaged student population
- Educators who apply with a colleague who will partner with them in the work.
- Paired applicants that represent different disciplines.

Each cohort will be selected by a review panel that includes stakeholders from K-12, industry, higher ed, and organizations that support the work.

Support

To pull together partners and implement a meaningful, real world project for students is a difficult challenge for teachers to take on alone. The Fellows Program is designed to overcome that barrier through the support that community partners and colleagues stand ready to provide.

The Learn Deep Program team will serve as a main point of contact for teacher Fellows. This includes coordination of project and program events, adviser and mentor assignments, and help with resolving issues that may arise over the duration of the program.

Program Peers

Fellows will work in teams to design and implement their project. Teams will also have the opportunity to get feedback and suggestions from Fellows working on other projects. In subsequent years, second and third year Fellows will help guide the work of incoming Fellows in addition to taking on their own new or re-imagined Learning Experience.

Coaching/check-in sessions

The program team will conduct regular sessions with Fellows to understand how the program and pilot project are working, and what adjustments might be necessary. This will include a mix of in-person meetings and video calls with teachers working on each project. The program team will also be available to meet with students and teachers at each teacher's discretion.

Program Partners

Program Partners from industry, higher-ed and nonprofit organizations will work with Fellows to envision and design Learning Experiences ('student projects'). They will also help project teams identify where their own programming or opportunities for on-site experiences might be leveraged to support teachers and students as they take on a Fellows project.

Advisers

Each project will have a pool of individuals that function as advisers from outside organizations to support teachers and students in their work on the project. This may include participation in student design work reviews, classroom visits, or responding to questions from students or teachers.

Near Peer Mentors

Learn Deep will work with higher education partners to enlist college students pursuing degrees in freshwater sciences, engineering, and computer science to serve as near peer mentors. These near peer mentors will be paired with a Fellows teacher to support his/her students in their work on Fellows projects.

inspirEd Community

Learn Deep hosts 'inspirEd', a growing private online Collaborative Learning Community for Milwaukee area educators and community partners. inspirEd complements in-person workshops and meetings. It is free for anyone interested in connecting and working with others looking for collaboration aimed at evolving student learning. Fellows will have access to one of the dedicated spaces within inspirEd to collaborate with colleagues and partners in the Program. Fellows may also tap the larger inspirEd community for ideas, feedback, and support in work inside or outside of the Fellows Program. Learn more about inspirEd.

Materials/Partner Programming

Fellows projects will include a $600 budget per teacher each year for materials and/or outside programming that supports project implementation Fellows will work with their project team to decide how to allocate those funds.

Fellows Stipend

Fellows will receive a $750 stipend per year for their participation in the program, to be paid at three points over the year: at the end of the summer program and at the end of each semester.

Deliverables

Over the course of each year of the Fellows Program, teachers will work in teams to develop a program guide for the project they design. This guide will include:

- Student journey map -- project events, curriculum connections, roles for partners
- Resources Fellows might incorporate in their Learning Experience plans
- Specific experiences teachers or students should have before or during work on the project
- Community partners
- 3rd party programming (courses, explainer videos, etc.) tapped to support the project

At the conclusion of the project, teachers and partners will participate in a debrief session to document

- Lessons learned
- Potential extensions

These documents and related project resources will be made available on inspirEd to Fellows and other members. Learn Deep will promote the availability of these materials to prospective community members.

Timeline

The annual cycle for the Fellows Program begins with an application and selection process in April.

April 2021

Selection and announcement of Fellows

May 2021

The first cohort of Fellows will kick-off with a working session that brings educators and community partners together to explore shared goals and interests and generate an inventory of potential projects. This inventory will be published in the inspirEd community and available to Fellows and community partners.

June/July 2021

Exploratory PD

Fellows are encouraged to participate in professional development that can help inform their thinking about the design or implementation of Fellows projects. These opportunities include:

- PLTW Gateway training classes
- Project GUTS training through Marquette University
- MSOE STEM Center
- Gearbox Labs
- Others TBD

Given the pandemic, we anticipate that Exploratory PD sessions may be conducted virtually.

Pre work

Educator/Partner Interviews
To help build connections between Fellows and program partners, we'll ask each fellow to lead and record a conversation with one of the program partners. The structure for that conversation will have both participants share what drives them in the work they do, the challenges they face, and opportunities they see to address those challenges. The goal of this work is to give both educators and partners a better sense of one person they may be working with, where their passions might align, and the capabilities each might be able to offer.

Interview recordings will be posted within inspirEd where they may be accessed by Fellows Program participants and partners.

Envisioning Preparation
Prior to the STEM Studio sessions, Fellows will meet with the program team to share what they heard during their educator/partner interview. As part of that discussion we'll have the Fellows inventory:

- problems faced or posed by partners which might prove interesting for students to take on;

- what educators would like to see students experience as part of a real world challenge;
- the attributes of a real world learning challenge for students that are key to creating a valuable experience for students.

July 26 - August 6 STEM Studio

The STEM Studio will bring Fellows and community partners together to design a collaborative, real world Learning Experience for students that will run during the 2021-22 school year. That design will include the resources and programming teachers and or their students will need as they take on the work or prepare to do so.

Learning Experience Design Workshops

- Day 1 - Project idea generation
- Day 2 - Project selection, team formation, initial vision
    - How will we work together
- Day 3 - Key events, partner roles
- Day 4 - Experiences and exercises to prepare students and/or teachers to take on the project
- Day 5 - Review and feedback, key issues to address
- Day 6 - Connections to curriculum standards
- Day 7 - Working session - Prototype and test key experiences
- Day 8 - Working session - Prototype and test key experiences
- Day 9 - Working session
- Day 10 - Presentation of projects, celebration with program partners.

2021-22 School Year

Fellows projects will run during some portion of the 2021-22 school year. The duration and timing will depend on the nature of the project, but we anticipate that projects would kick off some time in October and wrap up by early spring.

Over the course of a project, we anticipate three events that would include participation of all students:

1. a project kick-off gathering,
2. a mid-point review,
3. and a final presentation or showcase.

Fellows project teams will work with partners to identify opportunities for experiences that get students out of the classroom and on-site with community partners. The nature and timing of these on-site experiences will be driven by the arc of the project. On-site experiences will be designed with the intent of supporting students in their work on their fellows project with a goal that students might participate in two such experiences per semester.

Learn Deep's Collab Labs are held in the evening on the second Thursday of each month. The tentative schedule for the 2021-22 school year is:

- October - Introduction of Fellows projects
- November - Prototyping/testing ideas
- December - Working with community partners
- February - Student experience
- March - Connecting projects across grade levels
- April - Fellows experience (what have we learned/how do we want to adjust)
- May - Welcome Cohort II

Distance Learning

Given the pandemic, it is anticipated that the May kick-off session will be a virtual event. Exploratory PD may be virtual or in-person at the discretion of the provider. STEM studio design sessions are planned as in-person workshops. As part of the design process, the team will develop options for both in-person and virtual work for meetings and project events. The approach to follow will be decided as we gain a better understanding of what the 2021-2022 school year will look like.

How to Apply

An application form for the Fellows Program is available here: [placeholder for link]

That form will ask for the following information:

- Contact information for the applicant/(applicants where teachers apply as a pair)
- School, grade level, focus of the applicant(s)
- Existing programming at school (PLTW, First, SHARP, Girls Who Code, Project GUTS, Green Team, etc.)
- Statement of what the applicant(s) hopes to get out of the program
- Statement of what the applicant(s) hope students will gain from applicant's participation
- A brief description of an innovative project or practice that the applicant(s) have implemented within the school/classroom
- If the applicant(s) has an idea for a project or practice the applicant(s) would like to implement, a brief description of it.
- Letter of support from the school

Applications are due no later than Sunday, April 25th. In addition to the application form, teachers are asked to provide a letter of support from your school or district leadership. Letters of support should be sent via email with the subject line "CT Fellows Recommendation" to fellows@learndeep.org no later than Sunday April 25th.

Program Partners

Learn Deep

- Program design, management, recruitment

Strategic Industry Partners

Northwestern Mutual

- Program sponsor
- Industry advisers

MMSD

- Industry adviser
- Expertise for project and program review
- Leverage programming/expertise to support teachers and students

Higher Education Partners

MSOE STEM Center

- Leverage space and existing programming to support teachers and students
- Recruitment of near peer mentors

Marquette University Computer Science

- Project GUTS training
- Near peer mentors through service learning requirements
- Data Infrastructure development to support work of students involved in project through service learning requirements

Freshwater Collaborative of Wisconsin

- Facilitate connections to freshwater faculty and students across UW System campuses
- Program and project review

UWM School of Freshwater Sciences

- Facilitate connections to faculty and students within the School of Freshwater Sciences
- Provide space for project events
- Program and project review

Program Support

Beyond STEM

- Program and project review
- Leverage programming/expertise to support teachers and students

Gearbox Labs
- Project ideation, design, review
- Leverage programming/expertise around the use of arduino sensors to support teachers and students

Reflo
- Provide opportunity within Green Schools conference to showcase program projects
- Expertise for project and program review
- Leverage programming/expertise to support teachers and students

Sweetwater
- Expertise for project and program review
- Leverage programming/expertise to support teachers and students

STEAM Milwaukee
- Expertise for project and program review
- Lending library and support for STEAM materials

Partnership Opportunities

In addition to the chance to build relationships with new community partners, schools and Fellows should look at their involvement in the program as an opportunity to deepen engagement with partners they are already working with. Existing school partners are encouraged to participate throughout the process to envision, design, and execute fellows projects.

If you work with other partners you would like to see as part of the Fellows Program, please let us know. There are a number of ways for partners to get involved.