BOISE STATE UNIVERSITY
IDoTeach

STEM-ED 480 Apprentice Teaching

Fall Semester 2022
Location: ED 417
Time: Mondays, 4:30 PM - 6:00 PM

	Liaison	Liaison
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Staying safe in this course during the COVID-19 pandemic

At Boise State, we're looking forward to another successful semester. This success depends on all of us taking small but necessary steps to keep students, faculty, staff and the local community healthy and safe during the pandemic. For its part, the university has put public health requirements measures in place to support our success. For example, Boise State Public Health staff monitor case rates and perform contract tracing in every class where there may have been a COVID-19 exposure.

As students and faculty, our part of this work is to understand and adhere to Boise State's rules and strategies to maintain public health. If you are experiencing any COVID-19 symptoms, you should stay home, test, and wait for the results before attending in-person campus activities. Layered COVID-19 prevention strategies are outlined on this University's COVID-19 web page. And for the purpose of facilitating contact tracing of positive cases to prevent classroom/campus spread, you also need to sit in the same seat all semester.

You will select your seat at the first class meeting. Please note the seat number, as this seat will remain yours, unless seating arrangements are reassigned during the semester by the instructor. You will need to enter this seat number in MyBoiseState's student view, on the Schedule tab.

I encourage you to learn about other precautions you can take to keep yourself and your peers safe; you can find the latest recommendations on the Health Guidelines website. Please note that failing to follow these rules and precautions is a violation of Boise State's Student Code of Conduct and will subject you to university sanctions and discipline.

While facial coverings are not currently required in classrooms and most other campus buildings, students who feel more comfortable wearing a mask are encouraged to do so. The Centers for Disease Control and Prevention continue to view masking as "a critical public health tool" alongside "vaccination, self-testing, and physical distancing," and Boise State recommends the use of facial coverings to provide an extra layer of protection from COVID-19, especially during periods of time or in places associated with high transmission. As the University allows students and faculty to choose whether or not to wear a facial covering in classrooms, we will respect one another's decisions in this regard.

Specific protocols may change during the semester, and additional measures may become necessary as the public health situation evolves. Guidance for such change will come from the Boise State University Office of the President. Additional details regarding guidelines, protocols, etc., may be found on the University's COVID-19 website.

We are taking these and other health precautions so that this course and others can continue to meet in person. Of course, even implementing these strategies can't keep us 100% safe from infection. Because we are breathing common air in the classroom and sitting close together for entire class meetings, all of us remain at risk of potential exposure to the virus. To preserve this learning community for the duration of the semester, it is imperative that we all engage in behaviors that protect the overall public health.

This course is specifically designed for the in-person [or hybrid] learning environment. The face-to-face format of this course offers a number of benefits that appeal to many students. While I will accommodate the learning needs of students who need to isolate or quarantine, you should expect that this course will continue to meet in person all semester. Should you prefer a course that meets online or remotely, please talk with me, and we will see if another section of this course or a similar one is available.

Student well-being

If you are struggling for any reason (COVID, relationship, family, or life's stresses) and believe these may impact your performance in the course, I encourage you to contact the Dean of Students at (208) 426-1527 or email deanofstudents@boisestate.edu for support. Additionally, if you are comfortable doing so, please reach out to me and I will provide any resources or accommodations that I can. If you notice a significant change in your mood, sleep, feelings of hopelessness or a lack of self worth, consider connecting immediately with Counseling Services (1529 Belmont Street, Norco Building) at (208) 426-1459 or email healthservices@boisestate.edu.

Course Description STEM-ED 480 APPRENTICE TEACHING. Teaching in the classroom under the mentorship of a teacher in the field. Fieldwork is required.

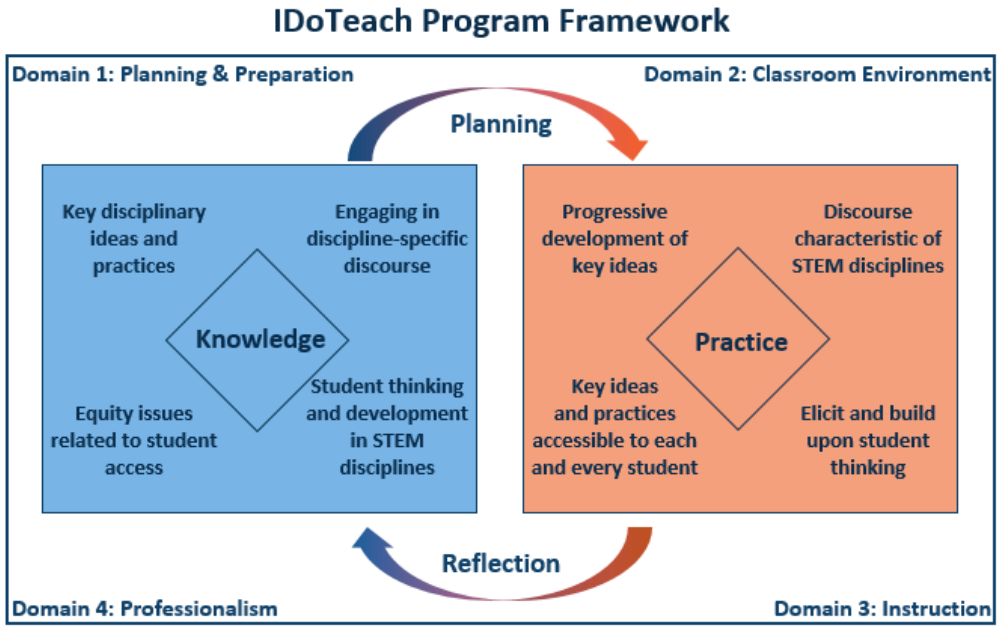
Prerequisites Admission to the professional year as a Teacher Candidate, STEM-ED 350 (for non-math majors), STEM-ED 410, and current and passing fingerprint/background check for the entire semester.

Accommodations

Teacher Candidates needing further accommodations should also contact the Educational Access Center. All accommodations must be approved through the EAC prior to being implemented.

IDoTeach Program Framework

The IDoTeach Program is built upon research regarding effective teaching in the STEM disciplines, is situated within the evaluative Framework for Teaching used by the state of Idaho, and is informed by the national InTASC standards for educator preparation university programs. The framework's visual layout highlights the program's dual focus on developing both teacher candidates' knowledge and their instructional practice. It features an across-program emphasis on the knowledge, skills, and habits of mind needed to equitably attend to the wide range of interactions between student thinking, learning, classroom instruction, and the progressive development of key disciplinary ideas.



I. The course: Aims and Overview

IDoTeach Apprentice Teachers simultaneously take this seminar with the six-to-twelve hour STEM-ED 480 field experience, which is outlined in the IDoTeach Apprentice Teaching Field Guide. Course objectives and activities are aligned with Idaho's Department of Education Core Teacher standards and Charlotte Danielson's Model of the Framework for Teaching (FfT). The Apprentice Teachers demonstrate that they meet the state standards by preparing and submitting a series of nine activities through a web-based platform in Taskstream, which is administered through IDoTeach. Course activities, field experiences, and College of Education seminars also aid Apprentice Teachers in preparing for licensure (certification and STEM endorsements in secondary education; grades 6-12).

Class meets once a week for 1 1/2 hours. In a supportive environment, Apprentice Teachers share their experiences, successes, and work on solutions for difficulties they are experiencing. They learn about legal and logistical issues in teaching, become familiar with how the diverse components of a high school or middle school are organized into a highly effective system, and prepare for the transition to becoming an inservice teacher. For their final product, Apprentice Teachers submit a Standard Performance Assessment for Teachers (S-PAT), which documents their progress toward meeting the Idaho Core Teacher standards through the lens of the FfT.

This course is based on extensive research about how students learn STEM (Windschitl, Thompson, Braaten, & Stroupe, 2012). Three major principles about learning have been incorporated into the design of this course:

- The first is that young learners come into the classroom with pre-existing ideas and language about scientific, mathematical, and engineering phenomena— and that these have a profound impact on how they interpret instructional activities.

- The second is that all learners make sense of STEM-based ideas primarily through engaging with the STEM practices and talking with others (the teacher, other students). It is the job of teachers to develop systematic ways to engage students in disciplinary practices and specific kinds of discourse, especially through the use of diverse technology tools as schools implement online learning modalities.
- The third is that teachers develop and refine a repertoire of teaching practices that are deeply influenced by teachers' ideas about themselves, about subject matter, about students, and about the processes of teaching and learning. Both teachers' repertoires of practice and their underlying ideas about teaching are continually "under construction" and worthy of thoughtful reflection and inquiry.

The primary assumptions of this course are that:

- It is the responsibility of teachers to help children from *all* cultural and linguistic backgrounds meet high expectations for learning.
- Teaching is a complex craft that must be learned over a period of years.
- Teachers are professionals, and part of professionalism is critiquing and refining your practice on the basis of evidence of student learning.
- Learning to teach to your potential can only be realized through learning *with* other professionals over time.

Our goal is to help you to begin your career as a "well-prepared beginner" who is capable of continuously developing the core instructional capacity throughout your careers. It also includes preparing you as a beginning teacher who understands the vision behind the Idaho Content Standards (ICS) for the STEM disciplines, *Next Generation Science Standards* (NGSS) and Mathematics Common Core State Standards (CCSS), and who is capable of designing instruction in a way that aligns with this vision. Furthermore, we aim to position you as professionals who are ready to serve as full collaborators and leaders within schools.

II. Course Learning Outcomes

Apprentice Teaching, as the IDoTeach Program's culminating course, is the course where candidates will achieve the following outcomes:

Knowledge Learning Outcomes

Teacher candidates will demonstrate knowledge of and reflective habits of mind related to:

1: Key ideas in (STEM) discipline(s) and how these ideas emerge from disciplinary practices.
2: How and why to engage students in discourse characteristic of STEM disciplines.
3: Student thinking related to key disciplinary ideas and practices and how that thinking develops over time.
4: How and why to attend to issues of equity to promote student access to disciplinary ideas.

Performance Learning Outcomes

With professionalism, respect and enthusiasm, teacher candidates will demonstrate the ability to:

1: Plan and reflect on instructional sequences that promote progressive development of and connection between disciplinary ideas and practices.
2: Implement instructional plans at an appropriately high level of cognitive demand with discourse characteristic of STEM disciplines.
3: Elicit student reasoning, analyze evidence of student reasoning, and respond in ways that build upon student reasoning.
4: Attend to issues of equity in ways that make disciplinary ideas and practices accessible to each and every student.

III. Course expectations

a. **Participation:** We expect everyone to attend all seminars, contribute ideas, listen to colleagues, pose critical questions, and generate new discussions. To do this, you need to come to class *prepared* and *focused*. Participation includes classroom/school observations, co-planning with mentor teacher, and fully engaging with your host school and its students.
b. **Attendance at host schools:** Attendance at host schools during assigned class periods and required weekly hours is mandatory. Candidates are allowed a maximum of three (3) absences.
c. **Assignments**: We expect everyone to complete all field guide activities (1-9) in a timely manner and to post drafts in Drive for master teacher feedback by advertised deadlines. We expect all materials will be uploaded to Taskstream or Blackboard by the provided deadlines. If you have questions, just ask!
d. **Late work**: We expect everyone to do everything on time. We know that sometimes circumstances arise that cause schedules to become chaotic. The only way we will accept late work is if you have made special arrangements IN ADVANCE or as soon as you know you have a problem.

IV. Course Assignments

Please see the IDoTeach Apprentice Teaching Field Guide and Fall Dynamic Calendar (also available through Canvas) for details on all Activities and due dates.

V. Grades

The IDoTeach Instructor (your university liaison) and your mentor teacher(s) will determine the final grades cooperatively, based on the candidate's performance during Apprentice Teaching field experiences and seminars. Final authority and responsibility for grading and recording of grades rests with the master teacher. A standard letter grade is assessed and recorded in the Registrar's Office upon completion of the experience.

The Apprentice Teaching field experience requires:

- Weekly attendance in seminars, two absences permitted
- Attendance and participation in on-campus or remote College of Education seminars
- Teaching the specified number of days in the school during the semester
- Weekly lesson plan maintained on Google Drive, with following week's lesson plans updated and ready for review by Thursday at midnight

- **Completion of all field guide activities (1-9)**

* Note: A recommendation for an Idaho Standard Secondary certificate with endorsement(s) requires a minimum of (2) BASIC scores on all FfT components

Grading Scale:
A (2.5 to 3.0)
B (2.0 to 2.499)
C (1.5 to 1.999)
D (1.0 to 1.499)
F (failure to meet the aforementioned requirements)

Grades for the Apprentice Teaching course will be computed using the following weighting system and will reflect the candidate's proficiency with the IDoTeach program performance learning outcomes.

	Assignments and scoring (scores are based on performance levels)	**FfT Domain**	**Weight**
Performance Learning Outcomes: With professionalism, respect and enthusiasm, teacher candidates will demonstrate the ability to:			
PLO1: Plan and reflect on instructional sequences that promote progressive development of and connection between disciplinary ideas and practices.	S-PAT Unit Plan	1	15%
	Weekly Lesson Plans	1	10%
	S-PAT Assessment Analysis	4	10%
	S-PAT Concluding Reflection	4	5%
PLO2: Implement instructional plans at an appropriately high level of cognitive demand with discourse characteristic of STEM disciplines.	Final PYA	2, 3	20%
PLO3: Elicit student reasoning, analyze evidence of student reasoning, and respond in ways that build upon student reasoning.	Final PYA	2, 3	20%
PLO4: Attend to issues of equity in ways that make disciplinary ideas and practices accessible	Final PYA	2, 3	20%

to each and every student.			

***midterm scores can be used in place of the PYA for grading if the PYA doesn't occur, but PYA is still required for licensing**

VI. Course Materials

All course materials are available through our course website, Canvas course site, and individual Candidate Drive Folders.

VII. Education Program Standards

The College of Education and the Idaho State Board of Education have adopted program standards that guide the development of teacher candidates in their understanding of the complexity of teaching. These standards are based on those developed by the Interstate New Teacher Assessment and Support Consortium (InTASC) and shared by other accredited universities in Texas and across the United States. The Standards are broad understandings and practices gained throughout the program using a constructivist model—new learning is assimilated and attached to prior understandings, thus, over time, building a mental structure (schema) of educational concepts.

- **Standard #1: Learner Development:** The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
- **Standard #2: Learning Differences:** The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
- **Standard #3: Learning Environments:** The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.
- **Standard #4: Content Knowledge**: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.
- **Standard #5: Application of Content:** The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
- **Standard #6: Assessment:** The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.
- **Standard #7: Planning for Instruction:** The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

- **Standard #8: Instructional Strategies:** The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.
- **Standard #9: Professional Learning and Ethical Practice:** The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.
- **Standard #10: Leadership and Collaboration:** The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.
- **Standard #11:Technology:** The teacher is able to create, implement, and evaluate technology to enhance teaching, student learning, and other obligations (e.g. reports, grades, tests, etc.) required of teachers.

VIII. Student Code of Conduct

Each member of the University Community is obligated to assume individual responsibility for her/his personal freedom and actions. As members of the University, students enjoy the same freedoms of speech, peaceful assembly, and right of petition that all citizens enjoy. Each student, as a member of this community, is responsible for being familiar with the policies of Boise State University and with local, state, and federal laws since these reasonably guide our behaviors.

The *Student Code of Conduct* exists to assist in providing the best possible learning and living environment for all students. The University upholds the values of honesty, trust, fairness, civility, respect, and responsibility as the foundation for a successful academic environment. As a tool, the *Student Code of Conduct* will help promote growth and learning as students interact with their environment and accept responsibility for decision-making. The Boise State University student conduct process will help educate students about their responsibilities as members of an academic community and will impose sanctions when student conduct puts the community in jeopardy.

IX. Academic Honesty

All students are required to adhere to Boise State University's *Student Code of Conduct* on academic dishonesty. Assignments you submit must be your original work and cannot be used in other courses. Nor can you use significant portions of assignments completed for another course in this course.
All work that you submit must show your own ideas and current understanding. Assignments you submit must be original and developed by you. You are welcome to get ideas from other sources; however, you must interpret such ideas significantly and cite your sources. Anything copied from another source must be indicated with appropriate quotation notations. The consequences for academic dishonesty in this course will, at the minimum, be an "F" grade for the course. Consult the instructor if you have questions about what is considered academically honest for this course.