Progressive Science Initiative® (PSI®)
Progressive Mathematics Initiative® (PMI®)
MET6121: Secondary PSI-PMI Teaching Methods

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Course Credit: 4.0 NJCTL credits

Dates & Times:
This is a 4-credit, self-paced course, covering 16 modules of content. The exact number of hours that you can expect to spend on each module will vary based upon the module coursework, as well as your study style and preferences. You should plan to spend 12-20 hours per module, completing the module slides, readings, short answer assignments, labs, mastery exercises, practice problems, and module exams.

LMS Link: https://moodle.njctl.org/course/view.php?id=309

COURSE DESCRIPTION:
This course prepares secondary school teachers to instruct students using research-proven methods; methods that were initially developed for the Progressive Science Initiative® (PSI®) and are now being successfully extended to other domains.

Teachers will learn best practices for teaching including aspects of curriculum, pedagogy, technology, formative and summative assessment, grading, and pacing and how those are woven together to create a highly effective teaching and learning environment.

Specific topics include best practices for brief direct instruction, inquiry, modeling, facilitating group discussion, social constructivism and frequent formative assessment, supporting students in programming, mastery-based summative assessment, appropriate use of retakes to encourage persistence and mastery. Instruction will also focus on the use of student polling devices to drive instruction through formative assessment.

Prerequisite: None

STUDENT LEARNING OUTCOMES:
Upon completion of the course, the student will be able to:
1. Evaluate your own teaching practice and how to incorporate the PSI methodology into your classroom.
2. Justify the use of formative assessment as a critical teaching tool that is used to guide both teaching and learning.
3. Create a positive classroom learning environment that supports risk-taking and growth.
4. Evaluate which technology options will best allow you to incorporate PSI in your classroom.
5. Combine short direct instruction with demos and hands-on activities that engage learners.
6. Develop ideas for differentiating lessons in your classroom.

TEXTS, READINGS, INSTRUCTIONAL RESOURCES:

Required Texts:
National Research Council. *How People Learn: Brain, Mind, Experience, and School: Expanded Edition.* Washington, DC: The National Academies Press, 2000. ISBN: 978-)- 30907036-2

Recommended Readings:
- New Jersey Center for Teaching & Learning - Course Materials, Media Videos, and Instructional videos
- Common Core Mathematics Standards
- New Jersey Student Learning Standards for Mathematics
- Ferlazzo, L. (2012, January 9). The best resources on differentiating instruction. Retrieved July 20, 2016, from Edublogs, http://larryferlazzo.edublogs.org/2012/01/09/the-best-resources-ondifferentiating- instruction/
- Framework for 21st Century Learning
- Next Generation Science Standards

COURSE REQUIREMENTS:
Consistent attendance in your online courses is essential for your success. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact the Dean of Students.

Students should interact with fellow students and course instructor via the discussion boards within the course modules. These discussion boards are monitored by your course instructor and you can post questions or thoughts on module learning here.

Online classes have assignments and participation requirements just like on-campus classes. Budget your time carefully. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

GRADE DISTRIBUTION AND SCALE:
In order to receive a Passing grade, the participant must complete the following course requirements: all short answer assignments, critical thinking assignments, and the final reflection outlined in the *Assignments* section of the Class Schedule (below).

Grade Distribution:

Short Answer Assignments	5%
Critical Thinking Assignment	15%
Proctored Module Exams	70%
Proctored Final Assessment	10%

Grade Scale:

A	93 – 100
A-	90 – 92
B+	86 – 89
B	83 – 86
B-	80 – 82
C+	77 – 79
C	73 – 76
C-	70 – 72
D	60.0 – 69.9
F	59.9 or below

GRADING RUBRIC:

Short Answer Rubric can be found at the beginning of the course.

Critical Thinking Rubric can be found at the beginning of the course.

Final Proctored Assignment Rubric can be found at the beginning of the course.

ACADEMIC STANDING:
NJCTL has established standards for academic good standing within a student's academic program. Students enrolled in any NJCTL online course must receive an 80 or higher to successfully complete a course and receive credit for that course. An 80 is equivalent to a GPA of 2.7 or B-. Additionally, students in an endorsement program must receive a cumulative GPA of 3.0 for all courses combined in order to successfully complete the program.

ACADEMIC INTEGRITY:
Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work, unauthorized possession of academic materials, and unauthorized collaboration.

CITING SOURCES WITH APA STYLE:
All students are expected to follow proper writing and APA requirements when citing in APA (based on the APA Style Manual, 6th edition) for all assignments.

DISABILITY SERVICES STATEMENT:
We are committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Dean of Students, Melissa Axelsson, for additional information to coordinate reasonable accommodations for students with documented disabilities (melissa@njctl.org).

NETIQUETTE:
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom.

If you have concerns about something that has been said, please let your instructor know.

GRADED ASSIGNMENTS BY MODULE:

Module	Graded Assignments
1 - Introduction and Philosophy	Short Answer Assignment

2 - Information Literacy for Graduate Students	Critical Thinking Assignment
3 - Grading	Short Answer Assignment & Proctored Exam
4 - Direct Instruction	Proctored Exam
5 - Social Constructivism	Proctored Exam
6 - Formative Assessment and Polling	Proctored Exam
7 - Data Driven Decision Making	Proctored Exam
8 - Metacognition and Problem Solving	Short Answer Assignment & Proctored Exam
9 - Demonstrations, Labs, and Hands-on Activities	Critical Thinking Assignment
10 - Differentiation	Critical Thinking Assignment & Proctored Exam
11 - Positive Classroom Environment	Short Answer Assignment
12 - Pacing, Planning, and Collaboration	Short Answer Assignment
13 - Culturally Responsive Teaching	Short Answer Assignment
14 - 21st Century Learning	Proctored Exam
15 - Teaching Information Literacy & Digital Citizenship	Critical Thinking Assignment
16 - Self-Reflection	Proctored Final Assessment