Dr. Debbie O'Doan
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Ignite Your STEM: Code

Course Description:
This is the **second** course in the K-5 STEM Series offered through DIAL. It is a beginner level course in *Teaching Computer Science Fundamentals;* No previous experience with coding or computer science is needed. It is fully self-paced and is online at Code.org. With support and direction from the instructor, teachers will create an account, work through modules of the grade level they currently teach and learn how to use the Code.org site with their students. Course Modules include topics such as Digital Citizenship, sequencing, loops, events, etc. Each course module is expected to take 1-2 hours and teachers will choose between developing at least one lesson or their own or downloading a lesson from the site to use with their students. Teachers will be encouraged to take this course with other teachers in their school to have discussions and support. Teachers who complete this online training will submit their certificate of completion and evidence (photo, video, or other) of their implemented lesson to be eligible for credit.

Course Objectives:

Participants will:

- Learn new tools and build computer science knowledge and skills.
- Reflect on computer science teaching practices and strategies.
- Apply Computer Science Fundamentals and STEM concepts to lessons.
- Plan for implementing and teaching Computer Science Fundamentals.
- Connect with a community of fellow educators committed to bringing computer science to their students.

Textbook Information:
    N/A
Resources provided in the course by instructor:
    STEM Integration Article
    SAMR Technology Integration Model
    Code.org
Other possible tools used to support teachers:
 Zoom, Google Meet, Teams, Email, Mobile Phones, etc.

Attendance Policy:
This is a self-paced, asynchronous, flexible online course. Participants will show their work to the instructor via certificates, projects, online meetings, and classroom lessons. Upon completion of course activities, credit will be issued following USF graduate semester schedules (May 26, Aug 25, etc.).

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Course Activities:

Participants will be required to read articles, watch short videos, complete related activities, teach an integrated code lesson to their students and complete a final reflection. Course assignments will be housed in Google Classroom and sent through email. Teachers will complete at least 10 lessons for credit. Course assignments are as follow:

March 15-May 26 (self-paced) (Section 1)
May 30-Aug 25 (self-paced) (Section 2)

Course A Kindergarten	Course B 1st Grade	Course C 2nd Grade	Course D 3rd Grade	Course E 4th Grade	Course F 5th Grade
12 lessons ~12 hours to complete	12 lessons ~12 hours to complete	18 lessons ~18 hours to complete	18 lessons ~18 hours to complete	18 lessons ~18-20 hours to complete	20 lessons ~20-22 hours to complete
Concepts					
• Digital Citizenship • Sequencing • Loops • Events	• Digital Citizenship • Sequencing • Loops • Impacts of Computing • Events	• Digital Citizenship • Sequencing • Binary • Loops • Events • Data	• Sequencing • Events • Loops • Conditionals • Binary • Digital Citizenship	• Sprites • Digital Citizenship • Impacts of Computing • Nested Loops • Functions	• Variables • Data • For Loops • Internet • Sprites • Digital Citizenship

Evaluation:
The course is a Pass or No Pass course. Participants who complete the modules will receive a passing grade. Evaluation will be as follows:

Assignments	Points	Weight
Create Account, Log in, Explore site	10	5%
10 Lessons w/certificate	100 (10 each)	50%
Teach /Integrate Lesson in Class	50	25%
Reflection	40	20%
Total Points:	**200**	**100%**

Participant Behavior, Academic and Plagiarism Policy:
Ethical behavior, honesty and integrity are expected by all participants in this course and plagiarism will not be tolerated.