



Doc Nbr:	91353180	Status:	ENROUTE
Initiator:	tkingsle	Created:	Oct 25, 2022

New Course KO EDUC-E 534

Course Request Key Fields

1.	Requesting Campus	KO-IU Kokomo
2.	Matching Course	No
3.	School	EDUC - School of Education
4.	Subject	EDUC - Education
5a.	Course Number	E-534
b.	Has course number been reserved with, ussscrt@indiana.edu, University Student Services and Systems?	No
6.	Credit Type	Graduate
7.	Is this a Purdue Course?	No
8a.	Course Title	Inquiry in Math & Science
b.	Recommended Abbreviation	Inquiry in Math & Science

Course Catalog Attributes

9.	Academic Career	GRAD - Graduate
10.	Effective Term (anticipated)	Summer 2024
11.	Credit Hours	Variable 2.0 - 3.0
12.	Contact Hours	
13.	Is S-F grading approval being requested?	No
14.	Is variable title approval being requested?	No
15.	Prerequisites/Corequisites (to be enforced during registration)	Students must be admitted to the Elementary Transition to Teaching Program
16.	Course Description	This course will focus on developing teaching competencies in science and math instructional methodologies. Science methods will foster students' scientific literacy and develop the evidence-based science instruction approaches. Math methods will emphasize teaching math through problem-solving strategies.

Course Attributes for Scheduling

17.	Equivalent Courses	
18a.	Repeatable for Credit?	No
19a.	Type of Instructional Experience (Select primary component)	Methods Course
b.	Additional component(s) that apply	Lecture Activity Practicum Discussion
20.	Instruction Mode (select all that apply)	
21.	Instructor Name	
22.	Estimated Enrollment	20
23.	Estimated Enrollment Percent Expected to be Graduate Students	100

24.	Frequency of Schedule	Once Per Year
25.	Course Typically Offered	Summer Term
26.	Will this course be required for majors?	Yes

Additional Course Information

27.	Justification for New Course	State requirements for elementary transition programs is a maximum of 24 credit hours. This condensed program will combine Math and Science methods into one course and include a focus on STEM.
28a.	Does this course overlap with existing courses?	No
29.	Are the necessary reading materials currently available in the appropriate library?	No
30.	Do you anticipate this course will require a special fee? (Information Only)	No

Essential Syllabus Information

ESI 1.	Course Content	This is a hybrid course. This course will focus on developing teaching competencies in science and math instructional methodologies. Science methods will foster students' scientific literacy and develop the evidence-based science instruction approaches. Math methods will emphasize teaching math through problem-solving strategies.
ESI 2.	Representative Bibliography or Resources	Margaret (Peg). Smith, & Stein, M. K. (2018). 5 Practices for orchestrating productive mathematics discussion. National Council of Teachers of Mathematics. ISBN-10: - 0873536770; ISBN-13: - 978-0873536776 Schweingruber, H. A., Shouse, A. W., Michaels, S., & National Research Council. (2007). Ready, set, science!: Putting research to work in K-8 science classrooms. National Academies Press. ISBN-10: - 0309106141; ISBN-13: - 978-0309106146
ESI 3.	Teaching and Learning Methods	Teaching math through problem solving project Mathematics productive discussion lesson plan Guided-inquiry science lesson A virtual STEM lesson project Interdisciplinary STEM curriculum unit Science and math quizzes Field Assignments Teach a problem-solving math lesson Teach an inquiry science activity Attendance Participation assignments
ESI 4.	Learning Outcome/Objectives	Learning outcomes are based on the 2020 NSTA/ASTE Standards for Science Teacher Preparation and Association of Mathematics Teacher Education (AMTE) mathematics teacher preparation standards. Specifically, students will be able to: -Explore problem-solving math teaching principles. -Demonstrate understanding of different problem-solving math instructional strategies. -Demonstrate an understanding of science content knowledge regarding earth science, life science, physical science, and engineering design. -Implement guided-inquiry science lessons. -Apply technology tools in virtual science and math instruction. -Examine teaching interdisciplinary science and math lessons. -Evaluate and critique science and math teaching practices.

ESI 5.	Learning Assessment	Course Assignments 60% Field Assignments 15% Attendance 15% Participation assignments 10%
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University Graduate School Specific Questions

UGS1a.	Is this a cross-listed course?	No
UGS2a.	Is this a joint-listed (combined section) course?	No

For University Student Services and Systems Use Only

USSS 1.	Course ID	
USSS 2.	Remonstrance List	