



**SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS**

New Course Request

SDSU	Arts & Sciences/Physics
Institution	Division/Department
Dennis D. Hedge	1/3/2018
Institutional Approval Signature	Date

Section 1. Course Title and Description

Prefix & No.	Course Title	Credits
PHYS 216	Physical Science for Early Childhood	3
PHYS 216L	Physical Science for Early Childhood Lab	0

PHYS 216 Course Description
Students will observe and analyze their physical world with tools appropriate for young children from birth to age eight. Developing and practicing strategies to engage the youngest learners in the physical world of playgrounds, kitchens, night and day skies will be a primary goal. This course will introduce and model the SD Early Learning Guidelines and the three dimensions of the South Dakota State Science Standards for kindergarten through third grade.

PHYS 216L Course Description
Laboratory to accompany PHYS 216.

PHYS 216 Pre-requisites or Co-requisites

Prefix & No.	Course Title	Pre-Req/Co-Req?
PHYS 216L	Physical Science for Early Childhood	Co-Req

Registration Restrictions

None

Section 2. Review of Course

2.1. Was the course first offered as an experimental course?

- Yes (if yes, provide the course information below) No

PHYS 199-199L – Primary Physical Science for Early Childhood Majors and Lab

2.2. Will this be a unique or common course?

- Unique Course**

Prefix & No.	Course Title	Credits
ELED 303	Earth and Physical Science for Elementary Teachers (BHSU, DSU, NSU)	3 - 4
ELED 303L	Earth and Physical Science Lab (DSU)	0
ELED 320	K-8 Science Methods (BHSU, DSU, NSU, USD)	2-3

Provide explanation of differences between proposed course and existing system catalog courses below:

PHYS 216-216L addresses needs in the Early Childhood Education (B.S.) – Birth to 8 Specialization. ELED 303-303L focus is on science content at a later stage of development – kindergarten through 8 th grade – while ELED 320 is a methods course also for grades K-8. PHYS 216-216L is guided by content guidelines in the South Dakota Early Learning Guidelines

(https://doe.sd.gov/oess/documents/HEADSTART_EarlyLearningGuidelines.pdf) particularly Science Guidelines 1, 2, 4, 5, 6 and the five Mathematics Guidelines. Because PHYS 216 will also encompass k-3 grades, the three dimensions of the South Dakota State Science Standards will be introduced and modeled for those grade levels. Pre-service Early Childhood Educators will be able to use Disciplinary Core Ideas in the areas of Earth and Space Science, as well as Physical Science, and Engineering Design to teach Crosscutting Concepts and promote Science and Engineering Practices. Only DSU offers a laboratory experience for the ELED 303 course. PHYS 216-216L would include a lab, be content focused, and align with the SD Early Learning Guidelines and SD State Science Standards. Preparing Early Childhood teachers to prepare students for STEM as they enter the school system is the main goal of PHYS 216-216L while the other courses focus on elementary and middle school, grades K-8. The Physics Department will offer this course.

- Common Course** *Indicate universities that are proposing this common course:*
 BHSU DSU NSU SDSMT SDSU USD

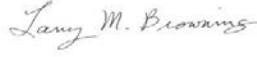
Section 3. Other Course Information

- 3.1. **Are there instructional staffing impacts?**
 No. Schedule Management, explain below: This has been offered as an experimental course. The instructor has workload time available.
- 3.2. **Existing program(s) in which course will be offered:** Early Childhood Education (BS) – Birth to 8 Specialization
- 3.3. **Proposed instructional method by university:** PHYS 216: R – Lecture, PHYS 216: L – Laboratory
- 3.4. **Proposed delivery method by university:** 001 – Face to Face - Term Based Instruction
- 3.5. **Term change will be effective:** Spring 2019
- 3.6. **Can students repeat the course for additional credit?**
 Yes, total credit limit: _____ No
- 3.7. **Will grade for this course be limited to S/U (pass/fail)?**
 Yes No
- 3.8. **Will section enrollment be capped?**
 Yes, max per section: PHYS 216L: 18 per lab No for PHYS 216
- 3.9. **Will this course equate (i.e., be considered the same course for degree completion) with any other unique or common courses in the common course system database in Colleague and the [Course Inventory Report](#)?**
 Yes No
- 3.10. **Is this prefix approved for your university?**
 Yes No

Section 4. Department and Course Codes (Completed by University Academic Affairs)

- 4.1. **University Department Code:** SPHYS
- 4.2. **Proposed [CIP Code](#):** 13.1316
Is this a new CIP code for the university? Yes No

NEW COURSE REQUEST Supporting Justification for On-Campus Review

Larry M. Browning		10/2/2017
Request Originator	Signature	Date
Yung Huh	Yung Huh	10/2/2017
Department Chair	Signature	Date
Jason McEntee	Jason McEntee	10/2/2017
School/College Dean	Signature	Date

1. Provide specific reasons for the proposal of this course and explain how the changes enhance the curriculum.

Currently students in the Early Childhood Education (B.S.) - Birth to Eight Specialization must complete a college level physical science course at SDSU (PHYS 101-101L, CHEM 106-106L or PHYS 185-185L) or, as a substitute, a course offered by BHSU, DSU, NSU none of which are geared for the birth to eight program or directly aligned with the SD Early Learning Guidelines. ELED 303 focuses on elementary education and only DSU offers a laboratory experience for the ELED 303 course while ELED 320 is a methods course. This means B-8 students have limited and less than ideal choices – take a laboratory course at SDSU designed for the general student or take a course from BHSU, DSU, NSU that may not have a laboratory component and is still not geared for B-8 but is closer (K- 8th grade). PHYS 216-216L would include a lab, be content focused, and align with the SD Early Learning Guidelines and SD State Science Standards. Further, B-8 students would not have to travel to another campus but could stay at SDSU. This course has been offered as a successful experimental and topics course for the past three summers. It is a collaboration between the Department of Physics and Early Childhood Education program to address science literacy and STEM readiness for young children.

2. Note whether this course is: Required Elective
3. In addition to the major/program in which this course is offered, what other majors/programs will be affected by this course?
This would provide an option for Early Childhood Education (BS) - Cooperative Elementary Education Program
4. If this will be a dual listed course, indicate how the distinction between the two levels will be made.
N/A
5. Desired section size 18 for lab, unlimited for lecture
6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).
Larry Browning, Professor, Ph.D.
Lynda Venhuizen, Lecturer, M.S.
7. Note whether adequate facilities are available and list any special equipment needed for the course.
Adequate facilities are available. Laboratory space is available in the Department of Physics with the Fishback Center for Early Childhood Education and Brookings City Parks being available to provide settings appropriate for ECE majors.
8. Note whether adequate library and media support are available for the course.
Yes, library and media support is adequate.
9. Will the new course duplicate courses currently being offered on this campus?
 Yes No
If yes, provide justification.

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10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined.

N/A