SOUTH DAKOTA BOARD OF REGENTS  
Revised Course Request: Common Course

SDSU  Arts & Sciences  Laurie Stenberg Nichols  10/9/13
Institution  Division  Institutional Approval Signature  Date
Physics  Joel Rauber  Kathleen Donovan  6/25/13
Department  Form Initiator  Dean’s Approval Signature  Date

NSU  College of Arts & Sciences/Biology, Chemistry & Physics, & Math Dept.
Institution  Division/Department  Institutional Approval Signature  Date
BHSU  College of Business and Natural Sciences/School of Natural Sciences
Institution  Division/Department  Institutional Approval Signature  Date
DSU  College of Arts & Sciences/ Mathematics
Institution  Division/Department  Institutional Approval Signature  Date
SDSMT  Department of Physics
Institution  Division/Department  Institutional Approval Signature  Date
USD  College of Arts & Sciences/ Earth Sciences & Physics Dept.
Institution  Division/Department  Institutional Approval Signature  Date

Indicate (X) the universities that offer the common course.

BHSU  x  DSU  x  NSU  x  SDSMT  x  SDSU  x  USD

Section 1. Course Title and Description

Prefix & No.  Course Title  Credits
PHYS 211  University Physics I  4

Course Description as it currently appears in the system common course database:
This is the first course in a two semester calculus-level sequence, covering fundamental concepts of physics. This is the preferred sequence for students majoring in physical science or engineering. Topics include classical mechanics and thermodynamics.

Section 2. Modification(s) Requested

X Pre-requisite change  MATH-123 or 125 (completed)  to  MATH-123 or 125 (completed or concurrent)

Justification for all changes noted above:
There is no discipline consensus regarding whether or not Calculus I should be a prerequisite or corequisite. A semi-random spot check of 14 regional schools of varying sizes and reputations indicated that nearly twice as many schools have calculus I (MATH 121 or MATH 123) as a corequisite rather than a prerequisite for this introductory level course (see attachment). The College of Engineering at SDSU have indicated their support for the change. The request is being made for the SDSU campus; BHSU and NSU have indicated their desire to be included in this change and therefore we wish to include them (but do not consider their participation as necessary to the request). SDSM&T, USD, DSU have no objections to the change, but desire to keep the prerequisites as currently configured on their campuses.

Section 3. Other Course Information

1. Will this course be equated with any other unique or common course in the course database? No

Section 4. To Be Completed by Academic Affairs

University Dept Code  SPHYS

Course Form #6  AAC 12/2006
**ATTACHMENT A**

**Prerequisite:**
- U. of Nebraska – Omaha
- Iowa State U.

**Corequisite:**
- North Dakota State U.
- U. Wisconsin -- Madison
- Kansas State U. – Eng. sections

**ATTACHMENT B**

**From:** Durben, Dan  
**Sent:** Wednesday, January 02, 2013 12:10 PM  
**To:** Rauber, Joel; Petukhov, Andre; Keller, Christina; Szczerbinska, Barbara; Dolejsi, Duane  
**Subject:** RE: Phys 211/213 prereq and coreqs

Joel,

I will support this change, and would like to have BHSU join in. Officially making the math classes co-req’s (rather than pre-req’s) will make it more clear that freshmen can get started on their physics sequence right away (rather than waiting until after they’ve taken calculus).

Dan

**From:** Rauber, Joel  
**Sent:** Monday, December 31, 2012 3:12 PM  
**To:** Petukhov, Andre; Keller, Christina; Durben, Dan; Szczerbinska, Barbara; Dolejsi, Duane  
**Subject:** Phys 211/213 prereq and coreqs

All – I would like to change the prerequisites for Physics 211/213 on the SDSU campus only and will need to get your blessing since it is a common course.

**Current Requirements:**
- P211 – Prerequisites: Math 123 or 125  
  Corequisites: P211L
- P213 – Prerequisites: P211  
  Corequisites: P213L

**Proposed Requirements** – for SDSU (and any others who want to join me)
- P211—Prerequisites: none  
  Corequisites: Math 123 (unless already taken) and P211L
- P213 – Prerequisites: Phys211  
  Corequisites: Math 125 (unless already taken) and P213L

A casual study shows that about 2/3 to ¾ of the calculus level courses have Calc I as a coreq rather than a prereq, it would simplify our lives immensely with little change in the rigour of the course. I’m only asking for this at the SDSU campus only, but as long as I’m doing the paperwork, anyone else that wants this can join in. I will need everyone OK to accomplish regardless. An e-mail response of no-objection is all that is probably necessary. I’d be happy to answer any questions that any of you have. Our engineering departments have no objection to this change, some are neutral and some prefer this change.
Thanks,

Joel Rauber, Ph.D
Professor and Head of Physics
Department of Physics
South Dakota State University

From: Szczerbinska, Barbara
Sent: Tuesday, January 01, 2013 4:34 PM
To: Rauber, Joel
Subject: RE: Phys 211/213 prereq and coreqs

Hi Joel,
I have no objections to the proposed change.
Cheers,
Barbara

Barbara Szczerbinska, Ph.D.
Associate Professor of Physics
Dakota State University

From: Dolejsi, Duane
Sent: Sunday, January 06, 2013 4:50 PM
To: Rauber, Joel
Subject: RE: Phys 211/213 prereq and coreqs

That would be ok with me.

Duane

From: Rauber, Joel
Sent: Thursday, January 03, 2013 8:01 AM
To: Dolejsi, Duane
Subject: RE: Phys 211/213 prereq and coreqs

Duane,

Do you want me to add NSU to the change in the paperwork?

Joel

From: Dolejsi, Duane
Sent: Wednesday, January 02, 2013 6:42 PM
To: Rauber, Joel; Petukhov, Andre; Keller, Christina; Durben, Dan; Szczerbinska, Barbara
Subject: RE: Phys 211/213 prereq and coreqs

I agree that this is the way to go.

Duane

From: Rauber, Joel
Sent: Monday, December 31, 2012 4:12 PM
To: Petukhov, Andre; Keller, Christina; Durben, Dan; Szczerbinska, Barbara; Dolejsi, Duane
Subject: Phys 211/213 prereq and coreqs

All – I would like to change the prerequisites for Physics 211/213 on the SDSU campus only and will need to get your blessing since it is a common course.

From: Keller, Christina
Sent: Thursday, January 03, 2013 9:27 AM
To: Dolejsi, Duane; Rauber, Joel; Petukhov, Andre; Durben, Dan; Szczerbinska, Barbara
Subject: RE: Phys 211/213 prereq and coreqs

Joel,

It’s not clear that you need the approval of all of us to make a change to unique pre-reqs on your campus, but I have no opposition to you changing your pre-requisites.
I agree that this is the way to go.

Duane

All – I would like to change the prerequisites for Physics 211/213 on the SDSU campus only and will need to get your blessing since it is a common course.

Hi Joel,

I do apologize again. Now for the delay.

My answer to the main question about the prereq versus coreq is OK.

I believe I met Parishu Kharel when he was at Wayne State. I know that he did a lot of good work for the project on d0 magnetism in In2O3, but I mostly worked with his bosses Boris Nadgorny and Gavin Lowes.

Best regards

Andre

On 3/11/13 4:47 PM, "Rauber, Joel" <Joel.Rauber@SDSTATE.EDU> wrote:

Andre,

While not super important our curriculum people require an email of “approval” before I can do any COM course requests. Below is what I sent out to all the other departments.

Joel

PS – My apologies, I meant to send this to you, but sent it to myself and I was wondering why I didn’t hear back on Thursday or Friday; the senior moments are coming more frequently. As an aside, we are interviewing a collaborator of yours for a position in our department Parishu Kharel, he apparently knows you from when he was at Wayne State U.

What are your thoughts on the below.

Andre,

You are the only one who hasn’t responded yet. See below for proposal, All sites are OK with the proposal and BHSU and NSU have requested to be included on the change of prerequisites. I hope you are OK with us changing it on our campus (and the other two), and if you desire the change on your campus as well I will write up the request to include you guys.

Joel