Instructor: Professor Dawn Anderson  
Email: Dawn.Anderson@usd.edu

Course Number: PHYS 187L  
Class Meetings: Online

Course Description
This course is the laboratory component that accompanies PHYS 187 Introduction to Astronomy II. This lab will introduce you to the techniques used by astronomers to determine parameters about stars and galaxies. Competency with math at a level gained upon graduation from high school is expected - this means you should be placed into a math course higher than MATH 095 or have passed that course.

Textbook & Materials
No textbook is required for the course. You must download the Virtual Astronomy program that is available on the USD Information widget in D2L. A lab manual is part of the computer program. However, it is strongly encouraged that you use the laboratory instructions provided in the content tab of the course rather than the lab manual contained within the program.

Instructional Method
This course will be instructed entirely online via Desire2Learn (http://d2l.sdbor.edu) While this is an online class, it does not mean it is a self-paced or correspondence-like course. Each week you will be required to complete a number of tasks and assignments. Please pay careful attention to the lab due dates in D2L.

Expectations

Students
First and foremost, students are expected to read, understand and abide by all policies and procedures outlined in this syllabus, as well as those in the CDE Online Orientation, which can be accessed from the “Getting Started” widget on the course homepage. The latter contains important information about the various academic, student and technical resources and services available at USD.

In terms of time commitment, the South Dakota Board of Regents (SDBOR) defines a credit hour as constituting one hour of classroom or direct faculty instruction, and two hours of out-of-class, student work. To that end, as this is a one-credit-hour course, students should expect to invest around three (3) hours per week in the course.

TIP: You can, optionally, forward your D2L course mail to your preferred email account (e.g. Gmail, Yahoo, Hotmail, etc.). See the guide in the course FAQ for an important limitation of this feature, as well as for instructions on how to set up this feature.
Students are also expected to have and maintain the appropriate technology required to complete the course. For more information about this, please see the “Technology Requirements” towards the end of the syllabus.

One important thing to remember: when all is said and done, this is your class; it is what you make of it. Your level of participation will be directly proportional to your class experience: you will get out of it what you put into it.

**TIP: Read the “Tips to Be Successful in the Course” document in the “Getting Started” widget on the course homepage.**

**Instructor**

The instructor will strive to provide every possible opportunity for detailed feedback and, unless otherwise stated, will respond to inquiries within twenty-four (24) hours on weekdays, or within forty-eight hours (48) on the weekends. The instructor will also endeavor to return feedback and suggestions, using standard rubrics and grading criteria, prior to the due date for the following assignment, i.e., within one week—see the “Assessments” section below for more detail.

Finally, the instructor will also abide by all policies set forth in this syllabus and those by the CDE Online Orientation, The University of South Dakota, and the SDBOR.

**Course Objectives**

This course is designed to provide an understanding of the process scientists use to discover information about the cosmos. The goals of this course coincide with System General Education GOAL #6: Students will understand the fundamental principles of the natural sciences and apply scientific methods of inquiry to investigate the natural world. This course provides students with the opportunity to apply theoretical concepts learned in the accompanying course, PHYS 187.

The overall goals for this course are simple:

- Demonstrate the scientific method in a laboratory experience related to astronomy.
- Gather and critically evaluate data using the scientific method

**Assessments**

Because of the online nature of this course, it is important that students receive regular feedback on their progress. To that end, you will be asked to complete a weekly laboratory report to assure that ample feedback is provided and that ample opportunity is provided to ask questions about the various course topics.

**IMPORTANT:** Make-up assessments will only be available under conditions such as serious illness, family emergencies, etc., and will be provided solely at the discretion of the instructor. When possible, students should notify the instructor prior to missing any assessment.
Graded Assessments: Laboratory Reports
You will be asked to complete a lab and turn in a lab report on a weekly basis. Please see the link entitled “Expectations for your Lab Reports” to receive a description of the format required and the grading rubric for the report. You will be required to complete and submit twelve lab reports, each of which is worth ten points. Lab reports for the week will be due by Friday @ 11:59 AM CDT. Each lab will become available at noon on Friday. This will give you a full week to submit each lab other than the first lab. Lab reports are to be submitted using the Dropbox feature of D2L. You will receive graded feedback on your submitted lab prior to the due date for the next lab.

Grading
Each lab report will be worth ten points for a total of 120 points available in the course. Your grade is calculated using straight percentages; however, you must submit all twelve reports in order to receive an A in this course, regardless of your overall percentage:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
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<tr>
<td>B</td>
<td>80-89%</td>
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<tr>
<td>C</td>
<td>70-79%</td>
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<tr>
<td>D</td>
<td>60-69%</td>
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<tr>
<td>F</td>
<td>up to 59%</td>
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IMPORTANT: You can check your current grade at any time during the semester by clicking on the Grades link. You will also be able to check the grades for any assessment, as well as feedback on those assessments, using this link as well. Please contact your instructor if you have questions on your progress.

Course Schedule:
Please see the “Course Schedule” in the USD Getting Started Widget on the course home page.

Technology Requirements
The University of South Dakota has established minimum technology requirements for participation in online courses. These are outlined under the “Technology Support and Requirements” section in the CDE Online Orientation document in the “Getting Started” widget on the course homepage.

Aside from the requirements listed in that document, this course has several other requirements:

1. All students must submit the written portion of lab reports as Microsoft Word 2010 or later documents (.DOC or .DOCX) to take advantage of the symbolic features of this program.
2. All students should have access to Microsoft Excel 2003 or later to allow for efficient manipulation and presentation of data.
3. A free download of Office 365 ProPlus is available. More information can be found on the Office 365 Student Advantage Page in the myU Portal

4. The Virtual Astronomy program runs in a Windows®-based environment. Students must have access to a Windows®-based PC or be able to emulate the Windows® environment. Assistance with installing and running the software may be obtained from the USD Help Desk at 877-225-0027, via email at helpdesk@usd.edu, or submit an online request at https://portal.usd.edu/technology/helpdesk/index.cfm?casLogin=1.

**Desire2Learn (D2L):**
D2L will be used to facilitate all aspects of the course. In D2L, you will be able to:

- Communicate with your classmates and the instructor via course mail
- Access laboratory instructions and other useful laboratory tools.
- Access all required course materials.
- Access your course progress and grades.

To access D2L, please visit the following URL: [http://d2l.sdbor.edu/](http://d2l.sdbor.edu/)

**Student Resources:**
The University of South Dakota provides a number of useful services to students:

- **CDE Online Orientation Guide (see link in the “Getting Started” widget on the course homepage):**
  This contains very important information related to the services provided by the University of South Dakota as well as the University policies. In it, you will find such information as:
  - Academic support services such as the library, writing center, proctor and testing information, book purchasing, etc.
  - Student support services such as advising and enrollment information, financial aid, student life, and counseling, etc.
  - Technology support services like technology requirements, ITS Help Desk contact information, discounts on computers and software, etc.

- **USD Portal ([https://myu.usd.edu/](https://myu.usd.edu/)):**
The USD Portal is your one-stop place for a majority of services offered to any student taking a USD course—like this course. You can access the following services from the “Academics” tab in the portal:
  - WebAdvisor
  - I.D. Weeks Library

- **The USD Writing Center ([http://www.usd.edu/academics/academic-commons/writing-center.cfm](http://www.usd.edu/academics/academic-commons/writing-center.cfm)):**
The USD Writing Center was established to provide writing assistance to students in order to help them become better writers. It is available on campus during regular business hours and online in the evenings. Please visit the URL above for more information.
Plagiarism Policy:
Plagiarism is defined as using the words and/or ideas of another and representing them to be your own, without proper credit to the author or source. Whether intentional or unintentional, plagiarism will result, at a minimum, in a grade of zero for that assignment.

Since it is impossible to evaluate a plagiarized paper, no credit can be given. At the discretion of the instructor, a student may be subject to any, or a combination, of the following:

- allowed to rewrite and resubmit the assignment for credit
- given a zero for the assignment
- assigned a reduced grade for the course
- reported to the program in which the student is majoring and that department may take additional action
- dropped from the course
- failed in the course

Freedom in Learning:
Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact the Department of Physics at (605) 677-5649 to initiate a review of the evaluation.

Disability Services:
Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester. For information contact:

Ernetta L. Fox, Director
Disability Services
Room 119 Service Center
(605) 677-6389
http://www.usd.edu/ds/
dservices@usd.edu