

The University of South Dakota  
Math 121 – Survey of Calculus Online (4 CR)  
*Summer 2018*

**MATH 121** Survey of Calculus - 4 Credit Hours  
**Time:** Monday, May 14 – Friday, August 3, 2018  
**Instructor:** Shannon Kortan  
**Email:** [shannon.kortan@usd.edu](mailto:shannon.kortan@usd.edu)  
**Phone:** (605)842-2224 – Home (605)660-0187 – Cell  
**Office Hours:** e-mail daily and by appointment

### COURSE DESCRIPTION

MATH 121 Survey of Calculus includes an intuitive approach to limits, continuity, differentiation, and integration with an emphasis on applications of the derivative and the integral as well as topics from multivariable calculus.

**PREREQUISITE:** Math 102 (College Algebra) or Math 115 (Precalculus) or appropriate mathematics placement.

### IMPORTANT DATES

- **Monday, May 21, 2018:** last day you may add (or drop a class with a full refund).  
**Students who do not have my Summer 2018 MATH 121 MyMathLab access by 9 AM CT Monday, May 21, 2018 will be dropped from MATH 121.**
- **Wednesday, July 11, 2018:** last day to drop a class with a “WD” (withdraw) on your transcript.
- **Friday, August 3, 2018:** last day to take Final Exam - due by 5 PM CT.

### COURSE REQUIREMENTS

*Students are expected to read, understand, and abide by all policies and procedures provided in this syllabus. I cannot be held responsible for misunderstandings due to you not reading the syllabus or other documents I have posted.*

#### MyMathLab Access:

- Students are **required** to purchase a MyMathLab student account to access course content.
- Once registered in *MML* for our Math 121 Survey of Calculus course, you will have access to an interactive e-book, supplementary course materials to assist you in your study, homework, quizzes, chapter tests, the final exam, and your course grades.
- *MyMathLab* access may be purchased from the USD book store or online at MyMathLab.com.
- **Please use a SCHOOL email account** and check it often when you sign up for MML. Proofread it when you enter it to ensure you have no typos. I send a lot of emails out via MML email and don't want you to miss them!
- **If you are waiting for financial aid to purchase your subscription, you may begin the course work with a temporary account that is good for 14 days.**
- A document with detailed instructions regarding *MyMathLab* registration will be attached to the welcome email and posted on our D2L homepage.
- If you run into technical issues with MyMathLab, please use the online tech support links in MML. You can also do a live chat with Pearson for help.

**Textbook:** A hard copy of the text is not required. However, options available for those students who may prefer to have (1) access to a hard copy or a different e-book format of the textbook or (2) *MML* access bundled with our course textbook:

- **Optional Textbook:** This is a hard copy of the textbook. Applied Calculus for Business, Economics, Life Sciences, and Social Sciences, 13th Edition, by Raymond A. Barnett, Michael R. Ziegler, and Karl E. Byleen; Prentice Hall 2015 ISBN: 0321869834
- **Optional Textbook and MyMathLab Student Access Code Bundle:** For those students who prefer a hard copy of the textbook bundled with a *MML* student access code. This can be a more affordable option than purchasing the textbook and *MML* student access separately. ISBN-10: 0321925130

**Calculator:** A scientific calculator or a graphing calculator is permitted, but **no** TI-NSpire, TI-92, or TI-89 or other calculators which do symbolic manipulation. Electronic resources (such as cell phone, ipad, ipod, etc.) are **not** allowed.

**Student ID:** Your Student ID (or state issued ID) is required at the Testing Centers and with approved proctors to take a proctored assessment.

**Computer Headset (optional):** If you plan on participating in any online live help sessions, it is recommended that you use a USB multi-media headset – earphones with a microphone – so that you can ask questions instead of typing them. These can be purchased for around \$20 - \$30 depending on the brand and model (Logitech is recommended).

**Online Student handbook:** In addition please refer to the Online Student Handbook located in the USD Getting Started on the course home page. It contains information about the university's technical, academic, and student support services, as well as how to take advantages of these services, This document also contains important information pertaining to minimum technology requirements, registration information, as well as other university services and policies. You can find it online at [usd.edu/online](http://www.usd.edu/online) (under student resources) or you can reach the Student Resources page by following this link: <http://www.usd.edu/usd-online/student-resources>

### **LIVE ONLINE HELP SESSIONS**

Live online help sessions are available via Collaborate Ultra. To attend a session you have set up with me or with classmates, log into D2L and enter our course. Use the top menu and click the “Communications” tab. Select “Collaborate Ultra” from the drop-down menu. Use the link to enter the meeting room I have set up.

You do not need to purchase any additional equipment to meet with me on Collaborate, although headphones will make the session much easier for both of us, as will having a microphone equipped on your computer (or a computer headset). It is much like being in a classroom with me, except you cannot see me. You will hear me talking, can either talk or type questions and answers to me, and you will see me writing on the whiteboard in the classroom, but we will both be “invisible”. No web cams will be used - just speakers/headphones, microphones, and a whiteboard.

*Anyone who is having trouble with the course (or anticipates having trouble) is encouraged to set up regular meetings with me to avoid falling behind schedule, but sessions can be set up at any point a student needs one.*

### **EVALUATION PROCEDURES**

- All assignments and assessments are due by the date on the schedule in this syllabus, unless otherwise notified.
- There is NO EXTRA CREDIT so please do not even ask! If you want an A, you must earn it by doing the work!

### **Homework Assignments:**

- In this course, all required homework assignments will be completed in MyMathLab, which provides instantaneous feedback, step-by-step examples, and streaming video instruction.
- The only way to learn mathematics is to practice the material. ***If you can only get a homework problem correct because you followed an example, PLEASE practice that problem several more times until you can work it without help or you WILL struggle on the quizzes and tests in that unit!!***
- It is highly recommended that students view and listen to the instructor created video recording **before** attempting homework for that section. Examples presented in the videos are similar to homework problems and viewing/studying this material prior to attempting homework can save you confusion. After viewing the instructor created video, attempt the homework.
- You must attain a grade of at least an 90% on each online homework assignment before you will be allowed to move onto the next homework section or take a quiz or test over those sections.
- Each homework problem allows up to three attempts. After three incorrect attempts, you may click on the “Similar Exercise” button to get a new version of that problem which you can solve to receive credit.
- You may reenter a homework assignment at any time prior to the homework’s due date to rework any problem you answered incorrectly or to complete problems which were not attempted.
- If you have successfully submitted a homework assignment earning 90% or higher, but wish to access it again for practice without changing the homework score or receiving a late penalty, click on the **Gradebook** tab and

click on *Review* to the right of the assignment. While reviewing a homework problem, you can click on *Similar Question* within this *Review* without affecting your homework score and without a late penalty.

### Quizzes:

- Quizzes will be completed online within MyMathLab.
- The Pearson Lockdown Browser is required before you will be allowed to take a quiz in this course. The link to download it can be found at:  
[http://media.pearsoncmg.com/cm/pmmg\\_mml\\_shared/mxlplayer\\_update/mxlplayer\\_update.html](http://media.pearsoncmg.com/cm/pmmg_mml_shared/mxlplayer_update/mxlplayer_update.html)
- There are a total of 13 quizzes and due dates are clearly listed in the schedule at the end of this syllabus.
- **Please note that each quiz has a required due date and is due by midnight CENTRAL time on that date.**
- All quizzes can only be completed after receiving at least a 90% on the homework prior to the quiz, so plan ahead to avoid not being able to complete a quiz on time.
- With all quizzes, more than one attempt is allowed with only the highest score for that quiz being averaged into the course grade.
- **Do NOT take quiz attempts back to back!** Take time to prepare before you attempt it again. Go back and review EVERY problem you got wrong on the previous attempt on the quiz (log into MML, then click on your Gradebook in the left column, then use the link to "review" next to the quiz) Work out EVERY problem you got wrong (even if the error was small) ON PAPER. You must write it down to practice - looking does no good. Work every problem repeatedly until you can get it correct (the correct answer is given when you review). You must get it correct with NO HELP at all and without looking back. Once you do this, you should be ready for another attempt.
- Complete the quizzes as “mini” tests without access to notes or additional resources, and view them as a tool to provide you with feedback to assess your understanding of the math ideas. **If you cannot pass a quiz without notes, you need more practice before you move on!** *If you choose to move on without more practice, you WILL struggle on the test for that unit!*
- Though quizzes are not proctored, all quizzes are to be completed in one sitting. **To ensure that quizzes are completed in one sitting, there will be a 1 hour time limit on each quiz.**
- **Each student will be allowed ONE make-up quiz, after which all incomplete quiz grades will become zeros.** *Please e-mail me if you wish to use your make-up quiz so I can adjust any necessary due dates.*

### Exams:

- Each exam must be taken within the week specified in the course outline. **If you do not take the test within the specified week, your exam grade will be reduced 10% each business day it is late and no late tests will be allowed more than one week after the due date.** (You must contact me to get permission to take an exam late or it will not be open for you.)
- There is a time limit of 2.5 hours for unit exams and 3.5 hours for the final exam.
- You are required to take your unit exams in the presence of an approved proctor. *Information regarding proctors and proctor forms is given below.*
- All exams are password protected. After verifying your proctor, the Continuing Education staff will email the exam information and passwords to your proctor. It is your responsibility to contact your proctor to set up an appointment for each exam and to verify that he/she has received the test information, so please plan ahead for the exams.
- You will not be allowed to use cell phones, books or notes while taking the exams and your proctor may not give you any assistance in working the problems. However, I will provide a list of formulas for you to use for all exams, so please remember to ask your proctor for this if it is not given to you at the time of the test.
- When you report to your proctor or testing center, they should give you a cover page and a page of formulas for every test. All work will then be turned in to your proctor to be returned to me for grading. **If you are not given this, PLEASE ask your proctor before you start your test and do NOT test without the formulas.**
- Tests will be taken in MML and will be graded immediately by MML, but all work will be sent to me afterwards. Partial credit may be granted for correct work, so it is in your best interest to show all work and be neat and organized so I can easily follow it. In general, points are earned for following the given directions, neatness, organization, and **writing down work used to arrive at your answers.** Demonstrating that you understand the process of arriving at a solution and clearly writing down your work is important. If no work is shown to support answers or your work does not lead to the correct answer, you WILL LOSE points on that

problems and your grade may go DOWN after I receive the work, so please show all work neatly, numbering each problem.

- Within 2 weeks of the exam due date, I will go through your work to determine if you earned any partial credit or lost any points for not having supporting work. After I do this, work will NOT be returned to you, but I will add comments and/or correct work in MML on problems you got wrong to help you understand your errors. I encourage you to ask questions or set up an online session to discuss if you have questions about the way I graded your exam.
- The comprehensive final exam will cover all of the material from the semester. The final exam is scheduled for the last week of class and MUST be taken no later than Friday, August 3, 2018. Students will not be allowed to take the final exam before this week per university rules.

**PROCTOR FORMS AND STATE TESTING CENTERS:**

Site	Centers	Phone	Email
Pierre Area	<a href="#">Capital University Center</a>	605-773-2160	<a href="mailto:SDSU.CUC@sdstate.edu">SDSU.CUC@sdstate.edu</a>
Rapid City Area	<a href="#">Black Hills – Rapid City Testing Center</a>	605-718-4193	<a href="mailto:BHRCTestingCenter@bhsu.edu">BHRCTestingCenter@bhsu.edu</a>
Sioux Falls Area	<a href="#">Sioux Falls University Center</a>	605-367-5989	<a href="mailto:testingcenter@sduniversitycenter.org">testingcenter@sduniversitycenter.org</a>
Vermillion Area	<a href="#">USD Testing Center</a>	605-677-6240	<a href="mailto:testingcenter@usd.edu">testingcenter@usd.edu</a>
Madison Area	<a href="#">Dakota State Testing Center</a>	605-256-5101	<a href="mailto:assessoffice@dsu.edu">assessoffice@dsu.edu</a>
Spearfish Area	<a href="#">Black Hills – Spearfish Testing Center</a>	605-642-6099	<a href="mailto:BHSPTestingCenter@bhsu.edu">BHSPTestingCenter@bhsu.edu</a>
Brookings Area	<a href="#">SDSU Testing Center</a>	605.688.6460	<a href="mailto:sdsu.testing@sdstate.edu">sdsu.testing@sdstate.edu</a>

- You can access the website or email of the testing centers by clicking on the links given above.
- If you will be testing at a listed testing center, you should email the USD Testing Center to inform them of this.
- If you will NOT be testing at one of the listed testing centers, you are required to submit a proctor form to the CDE office for approval. The proctor form can be found on the homepage of D2L for this course, or at <http://www.usd.edu/continuing-and-distance-education/upload/Proctor-Form.pdf>.
- After verifying your proctor, the Continuing Education staff will email the exam information to your proctor.
- It is your responsibility to contact your proctor to set up an appointment for each exam, so please plan ahead for the exams.
- The office staff at the Continuing and Distance Education Office at USD is in charge of approving proctors, so the form must be sent to that office. **I have nothing to do with proctors and am not able to approve a proctor or send out any information to your proctor. All questions regarding proctors must go through the CDE office.**

Division of Continuing & Distance Education/Summer School  
 McKusick Room 211  
 University of South Dakota  
 414 E. Clark St. Vermillion SD 57069  
 Work Phone: 1-800-233-7937      Work Phone2: 605-677-6240  
[testingcenter@usd.edu](mailto:testingcenter@usd.edu)      <http://www.usd.edu/usd-online/testing-center>

**GRADING**

Your grade will be assigned according to the following guidelines:

Grading Opportunities	Weight
Homework for 5 units	10 %
12 Quizzes	20 %
4 Unit Tests	50 %
Final Exam	20%
Total for course	100 %

Letter Grade	Percent Range
A	90% – 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%

\*\* All current course grades can be found in MyMathLab under the “Gradebook” tab.

## University and Department Statements

### Cell Phone Statement

Cell phone use during proctored assessments is **not** permissible. If a cell phone is out, the default assumption is that it was intended for cheating purposes and the academic misconduct process will be initiated.

### Academic Integrity

The College of Arts and Sciences considers plagiarism, cheating, and other forms of academic dishonesty inimical to the objectives of higher education. The College supports the imposition of penalties on students who engage in academic dishonesty, as defined in the "Conduct" section of the University of South Dakota Student Handbook.

No credit can be given for a dishonest assignment. A student found to have engaged in any form of academic dishonesty may, at the discretion of the instructor, be:

- a. Given a zero for that assignment.
- b. Allowed to rewrite and resubmit the assignment for credit.
- c. Assigned a reduced grade for the course.
- d. Dropped from the course.
- e. Failed in the course.

### Disability Accommodation

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 or as soon as possible after the diagnosis of a disability. 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.

Please note: if your home institution is not the University of South Dakota but one of the other South Dakota Board of Regents institutions (e.g., SDSU, SDSMT, BHSU, NSU, DSU), you should work with the disability services coordinator at your home institution.

Disability Services

Service Center North, R119B

(605) 677-6389

Web Site: [www.usd.edu/ds](http://www.usd.edu/ds)

E-mail: [disabilityservices@usd.edu](mailto:disabilityservices@usd.edu)

### Diversity and Inclusive Excellence

The University of South Dakota strives to foster a globally inclusive learning environment where opportunities are provided for diversity to be recognized and respected. To learn more about USD's diversity and inclusiveness initiatives, please visit the website for the [Office of Diversity](#).

### 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 dean of the college or school that offers the class to initiate a review of the evaluation.

### Course Goals

This class fulfills the following Goals of the South Dakota System General Education Requirements:

BOARD OF REGENTS GOAL #5: *Students will understand and apply fundamental mathematical processes and reasoning.*

**Student Learning Outcomes:** As a result of taking courses meeting this goal, students will:

1. Use mathematical symbols and mathematical structure to model and solve real world problems.
  - a. The student's use of algebra and algebraic symbols to analyze, graph, and describe the properties and behaviors of relations and functions including linear, quadratic, rational, exponential, and logarithmic functions will be assessed using assignments, quizzes, exams, and a final exam.

- b. The student's use of algebraic concepts and methods to represent, simplify, and solve equalities, inequalities, and problem applications will be assessed using assignments, quizzes, exams, and a final exam.
2. Demonstrate appropriate communication skills related to mathematical terms and concepts.
  - a. Communication skills will be assessed via written responses on assignments, quizzes, and exams.

**Expectations of Students:**

- ★ Check D2L and email regularly for messages, assignments, etc.
- ★ Be prepared by reviewing posted class notes and lectures.
- ★ Complete all assignments on time. This is not a self-paced course. Meet all deadlines.
- ★ Take responsibility for one's learning. If you need help, ASK!
- ★ Although it may vary from student-to-student, **expect to spend at least 12 hours per week** on this class.
- ★ Show enthusiasm and interest in the subject matter.
- ★ Show respect for all others in the course.
- ★ Use proper email and chat etiquette at all times. Correct use of capitalization and punctuation are expected!

**Expectations of the Instructor:**

- ★ Show enthusiasm for teaching and mathematics.
- ★ Encourage students to develop good study habits.
- ★ Feedback on graded exams within 2 weeks of exam close date
- ★ Be available to answer student questions. You will be able to email me questions at any time.
- ★ Prompt replies to emails (I will reply within 24 hours during weekdays).
- ★ Post notes and recorded lectures for each assigned section on D2L (Desire2Learn).
- ★ Sincerity, honesty, and fairness in all aspects of this course

**COURSE OUTLINE**

You will be assigned homework and quizzes for each section. It is important that you view the lectures (Content tab in D2L course) and review the online notes for each section BEFORE attempting the MYMATHLAB assignments, as you will find that much easier to comprehend the material.

It is highly recommended that you keep up with the course schedule, **submitting each assessment at least two days before it is due** to avoid potential conflicts.

Week	Dates	Homework, Quizzes, and Tests to be completed	Due by Dates @ 11:59pm CT
1	May 14 to May 19	Prerequisite Material Homework	Tuesday, May 15
		Prerequisite Quiz	Wednesday, May 16
		Section 2.1 Introduction to Limits	Friday, May 18
2	May 20 to May 26	Section 2.2 Infinite Limits and Limits at Infinity	Monday, May 21
		<b>Quiz 1</b> (Sec 2.1, 2.2)	Tuesday, May 22
		Section 2.3 Continuity	Thursday, May 24
		Section 2.4 The Derivative	Friday, May 25
3	May 27 to June 2	<b>Quiz 2</b> (Sec 2.3, 2.4)	Tuesday, May 29
		Section 2.5 Basic Differentiation Properties	Wednesday, May 30
		Section 2.7 Marginal Analysis in Business and Economics	Thursday, June 1
		<b>Quiz 3</b> (Sec 2.5, 2.7)	Friday, June 2
4	June 3 to June 9	<b>Test 1 (Chapter 2)</b> (To be taken this week)	Open June 4 – June 9
		Section 3.2 Derivatives of Logarithmic and Exponential Functions	Tuesday, June 5
		Section 3.3 Derivatives of Products and Quotients	Thursday, June 7
		<b>Quiz 4</b> (Sec 3.2, 3.3)	Friday, June 8
5	June 10 to June 16	Section 3.4 The Chain Rule	Monday, June 11
		Section 3.5 Implicit Differentiation	Tuesday, June 12
		<b>Quiz 5</b> (Sec 3.4, 3.5)	Wednesday, June 13
		<b>Test 2 (Chapter 3)</b> (To be taken this week)	Open June 11 – June 16

6	June 17 to June 23	Section 4.1 First Derivatives and Graphs	Monday, June 18
		<i>Quiz 6</i> (Sec 4.1)	Tuesday, June 19
		Section 4.2 Second Derivatives and Graphs	Wednesday, June 20
		Section 4.4 Curve-Sketching Techniques	Friday, June 22
7	June 24 to June 30	<i>Quiz 7</i> (Sec 4.2, 4.4)	Monday, June 25
		Section 4.5 Absolute Maxima and Minima	Tuesday, June 26
		Section 4.6 Optimization	Thursday, June 28
		<i>Quiz 8</i> (Sec 4.5, 4.6)	Friday, June 29
8	July 1 to July 7	<i>Test 3 (Chapter 4)</i> (To be taken this week)	Open July 2 – July 7
		Section 7.1 Functions of Several Variables	Wednesday, July 4
		Section 7.2 Partial Derivatives	Thursday, July 5
		<i>Quiz 9</i> (Sec 7.1-7.2)	Friday, July 6
9	July 8 to July 14	Section 7.3 Maxima and Minima	Tuesday, July 10
		Section 7.4 Maxima and Minima Using Lagrange Multipliers	Thursday, July 12
		<i>Quiz 10</i> (Sec 7.3-7.4)	Friday, July 13
10	July 15 to July 21	Section 5.1 Antiderivatives and Indefinite Integrals	Tuesday, July 17
		<i>Quiz 11</i> (Sec 5.1)	Wednesday, July 18
		Section 5.2 Integration by Substitution	Friday, July 20
11	July 22 to July 28	<i>Quiz 12</i> (Sec 5.2)	Monday, July 23
		Section 5.5 The Fundamental Theorem of Calculus	Tuesday, July 24
		<i>Quiz 13</i> (Sec 5.5)	Wednesday, July 25
		<i>Test 4 (Chapter 7 &amp; 5)</i> (To be taken this week)	Open July 23- July 28
Finals Week	July 29 to August 3	<b>Students must take the Final Exam no later than Friday, August 3<sup>rd</sup> at 5 pm CT</b>	

### You have 6 assignments to do to get started in this course:

- 1. READ THIS SYLLABUS - THOROUGHLY!** You are responsible for everything in it, whether you read it or not, so please read so you understand the rules and policies it contains.
- Purchase a subscription to MyMathLab and join my course using the course ID given in the “Getting Started in MML” document sent with the welcome email and posted in our D2L course. *If you cannot afford a subscription right away, you may join with a temporary membership for approximately 2 weeks.*
- Take the Syllabus Quiz in MML. (You cannot begin any coursework until you receive a 100% on the Syllabus Quiz so try to get it done before class begins.) **Hint: print out the syllabus and HIGHLIGHT any parts covered in the Syllabus Quiz – those are important details and often sent to me as questions.**
- Log into our D2L course at <http://d2l.sdbor.edu> (not available until closer to class starting) and post an introduction on the discussion board containing the information requested on that page. Also read through the other introductions to get to know me and your classmates and check back periodically to read the new introductions.
- Visit the USD Portal at <http://my.usd.edu>. You can find links for Academics, Technology, Campus, and Administration, along with being able to enter information for single click sign-on to several commonly used sites.
- Visit the [Online Student Handbook](#) located in the USD Getting Started on the course home page. It contains information about the university's technical, academic, and student support services, as well as how to take advantages of these services. This document also contains important information pertaining to minimum technology requirements, registration information, as well as other university services and policies. You can find it online at [usd.edu/online](http://www.usd.edu/online) (under student resources) or you can reach the Student Resources page by following this link: <http://www.usd.edu/usd-online/student-resources> Although this document is rather long, it is extremely important that you read it in its entirety.