



## Mathematics 301: Elementary Geometry Spring 2018

**Instructor:** Dr. V. Huse

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**Office Hours** –Online- Monday and Wednesday from 8:00 p.m. - 10:00 p.m. for Skype and Facetime. I will be in the office in Corsicana on Monday from 3:00 – 5:00.

If you can't reach me, leave a message on my voice mail OR better yet, send me an **e-mail:** [Vanessa.Huse@tamuc.edu](mailto:Vanessa.Huse@tamuc.edu). This is the official email for this course and all students must use it for communications.

### COURSE INFORMATION

#### Materials – Textbooks

Elementary Geometry for College Students, 6th Edition, Daniel C. Alexander | GERALYN M. KOEBERLEIN ISBN- **978-1285195698**

#### Optional:

A calculator – graphing is better.

#### Course Description:

Topics will include plane and solid Euclidean geometry, including the properties of parallels, perpendiculars, triangles, and circles along with perimeter and formulas for area of plane regions and for the surface area and volume of solids.  
Prerequisite Math 351 or Math 192.

#### Course competencies:

**The beginning teacher of middle school mathematics should know and understand:**

1. how to use spatial reasoning to investigate concepts such as directions, orientation, perspective, shape and structure;
2. the use of mathematical reasoning to develop, generalize, justify and prove geometric relationships;

3. connections among geometric ideas and number concepts, measurement, probability and statistics, algebra and analysis;
4. measurements as a process;
5. methods of approximation and estimation and the effect of errors on measurement;
6. how to use measurement to collect data, to recognize relationships, and to develop generalizations, including formulas;
7. how to locate, develop, and solve real-world problems using measurement and geometry concepts;
8. how to explore geometry for synthetic, coordinate, and transformational approaches;
9. logical reasoning, justification and proof in relation to the axiomatic structure of geometry ;
10. how geometry, spatial reasoning and measurement concepts and principles are developmental and connected across grade levels.

### **Student Learning Outcomes:**

#### **When you complete this course, you will be able to:**

1. develop, justify and perform geometric constructions using compass, straight-edge and reflection devices and other appropriate technology;
2. investigate and prove geometric relationships within the axiomatic structure of Euclidean geometry;
3. analyze and solve problems involving one, two and three dimensional objects such as lines, angles, circles, triangles, polygons, cylinders, prisms, and spheres;
4. analyze the relationship among three dimensional figures and related two dimensional representations and use these representations to solve problems.
5. apply measurement concepts and dimensional analysis to derive units and formulas for a variety of situations including rates of change of one variable with respect to another
6. use symmetry to describe tessellations and show how they can be used to illustrate concepts, properties and relationships
7. relate geometry to algebra and trigonometry by using the Cartesian coordinate system and use this relationship to solve problems
8. use calculus concepts to answer questions about rates of change, areas, volumes and properties of functions and their graphs.

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| <b>COURSE REQUIREMENTS</b> |
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### **Instructional / Methods / Activities Assessments**

The goal of this course is to develop *understanding* of the mathematics. We are constantly going to be dealing with *WHY* more than *HOW*. As a future teacher you must be able to *explain* mathematics to your students, not just show them how to carry out mathematical procedures. We will focus on underlying structures and development of ideas. In addition, problem solving is a major component of this course. As a future mathematics teacher, you need to become familiar with and skilled in various types of problem solving techniques that are commonly used in mathematical thinking.

**Make-ups:** If for some reason you have to miss the midterm, then the final will count 58% of your grade.

## Grading

Grading will be based on research projects, a midterm, homework and a comprehensive final exam. In order to successfully mathematically prepare today's children for the technological world they face, a middle school teacher must have a solid understanding of a broad spectrum of mathematics, including mathematics at a level considerably beyond the grade he/she teaches.

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| Research Projects– | 14% |
| Homework -         | 14% |
| Discussions -      | 14% |
| Midterm -          | 28% |
| Final –            | 30% |

## TECHNOLOGY REQUIREMENTS

- To fully participate in online courses you will need to use a current Flash enabled internet browser. For PC and Mac users the suggested browser is Mozilla Firefox.
- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site](http://www.java.com/en/download/manual.jsp)  
<http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson LearningStudio Technical Requirements website. [Browser Check](http://help.ecollege.com/LS_Tech_Reg_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset) [http://help.ecollege.com/LS\\_Tech\\_Reg\\_WebHelp/en-us/#LS\\_Technical\\_Requirements.htm#Browset](http://help.ecollege.com/LS_Tech_Reg_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset)

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.  
JavaScript is enabled.  
Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader](https://get.adobe.com/reader/) <https://get.adobe.com/reader/>
  - [Adobe Flash Player](https://get.adobe.com/flashplayer/) (version 17 or later) <https://get.adobe.com/flashplayer/>
  - [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
  - [Apple Quick Time](http://www.apple.com/quicktime/download/) <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.
- For additional information about system requirements, please see: [System Requirements for LearningStudio](https://secure.ecollege.com/tamuc/index.learn?action=technical) <https://secure.ecollege.com/tamuc/index.learn?action=technical>

## ACCESS AND NAVIGATION

### ***Pearson LearningStudio (eCollege) Access and Log in Information***

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to [myLeo](#) and from the top menu ribbon select eCollege. Then on the upper left side of the screen click on the My Courses tab. <http://www.tamuc.edu/myleo.aspx>

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**Note:** It is strongly recommended you perform a “Browser Test” prior to the start of your course. To launch a browser test login to Pearson LearningStudio, click on the My Courses tab, and then select the Browser Test link under Support Services.

### **Pearson LearningStudio Student Technical Support**

Texas A&M University-Commerce provides students technical support for the use of Pearson LearningStudio.

Technical assistance is available 24/7 (24 hours, 7 days a week).

If you experience LearningStudio (eCollege) technical problems, contact the LearningStudio helpdesk at 1-866-656-5511 (toll free) or visit [Pearson 24/7 Customer Support Site](http://247support.custhelp.com/) <http://247support.custhelp.com/>

The student help desk may be reached in the following ways:

- **Chat Support:** Click on *'Live Support'* on the tool bar within your course to chat with a Pearson LearningStudio Representative.

- **Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson LearningStudio Technical Support Representative.

**Accessing Help from within Your Course:** Click on the *'Tech Support'* icon on the upper left side of the screen inside the course. Then you will be able to get assistance via online chat or by phone.

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

### ***Policy for Reporting Problems with Pearson LearningStudio***

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure must be followed:

1. Students must report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
2. Students must file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and provide me with the helpdesk ticket number.
4. I will call the helpdesk to confirm your problem and follow up with you

**PLEASE NOTE:** Your personal computer and internet access problems are not a legitimate excuses for filing a ticket with the Pearson LearningStudio Help Desk. Only Pearson LearningStudio based problems are legitimate reasons to contact the Help Desk.

You strongly are encouraged to check for your internet browser compatibility **BEFORE** the course begins and take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform.

#### **myLeo Support**

Your myLeo email address is required to send and receive all student correspondence. Please email [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu) or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at [myLeo](https://leo.tamuc.edu). <https://leo.tamuc.edu>

#### **Learner Support**

The [One Stop Shop](http://www.tamuc.edu/admissions/onestopshop/) was created to serve you by providing as many resources as possible in one location. <http://www.tamuc.edu/admissions/onestopshop/>


The [Academic Success Center](http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/) provides academic resources to help you achieve academic success.

<http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/>

## FREE Mobile APPS

The Courses apps for phones have been adapted to support the tasks students can easily complete on a smaller device. Due to the smaller screen size course content is not presented.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted for different devices.

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|---|--------------------------|---|
|  | <b>App Title:</b>        | <b>iPhone</b> – Pearson LearningStudio Courses for iPhone<br><b>Android</b> – LearningStudio Courses - Phone  |
|   | <b>Operating System:</b> | <b>iPhone</b> - OS 6 and above<br><b>Android</b> – Jelly Bean, Kitkat, and Lollipop OS  |
|   | <b>iPhone App URL:</b>   | <a href="https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8">https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8</a> |
|   | <b>Android App URL:</b>  | <a href="https://play.google.com/store/apps/details?id=com.pearson.lsphone">https://play.google.com/store/apps/details?id=com.pearson.lsphone</a>                             |

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

- View titles/code/Instructor of all Courses enrolled in online
- View and respond to all discussions in individual Courses
- View Instructor Announcements in individual Courses
- View Graded items, Grades and comments in individual Courses
- Grade to Date
- View Events (assignments) and Calendar in individual Courses
- View Activity Feed for all courses
- View course filters on activities
- View link to Privacy Policy
- Ability to Sign out
- Send Feedback

## LearningStudio Notifications

Students can be alerted to course activities via text on their mobile phones or up to two email addresses.

Based on their preferences, students can automatically receive a push notification with every new: course announcement, threaded discussion post, grade, and/or assignment without having to login to the course. Enrolled students will automatically receive email notifications for announcements and can opt out of this feature. To receive text notifications, students must opt in.

To begin setting up notifications, go into your course in LearningStudio and click on the bell-shaped Notifications icon on the main menu ribbon.

By default the student's university email address will appear. This cannot be changed in LearningStudio. Additional email addresses may be added by clicking the Add button. After all of the other selections are completed be sure to click the Save and Finish button.

## **UNIVERSITY PROCEDURES/POLICIES**

### **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### ***University Specific Procedures***

#### ***Student Conduct***

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](#)

<http://www.albion.com/netiquette/corerules.html>

#### ***TAMUC Attendance***

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Attendance in an online course will be observed by login into the course. Three weeks without a login will be considered excessive absences.

#### ***Academic Integrity***

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

**Cheating:** Cheating of any kind will result in an F for the term. All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct)

## **Academic Honesty Policy**

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

Disciplinary action for these offenses may include any combination of the following:

1. Point deduction on an assignment.
2. Failure for an assignment.
3. A grade of zero for an assignment.
4. Failure for the course.
5. Referral to the Academic Integrity Committee or department head for further action.
6. Referral to the Dean of the College of Education and Human Services, Business and Technology, Arts and Sciences, or Graduate School as appropriate.
7. Referral to the University Discipline Committee.
8. Communication of student's behavior to the Teacher Certification Office and/or Dean of the College of Education as constituting a reason to bar student from entering into or continuing in a teacher certification program. Procedures, A 13.04, 13.12, 13.31, and 13.32

## ***ADA Statement***

### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce  
Gee Library- Room 162  
Phone (903) 886-5150 or (903) 886-5835  
Fax (903) 468-8148

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>



## ***Nondiscrimination Notice***

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

## ***Campus Concealed Carry Statement***

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

## **COURSE OUTLINE / CALENDAR**

The course calendar is in eCollege listed by week. Assignments will be opened on Sunday of each week. You will have 7 days to complete each assignment which is due at midnight the next Sunday. Testing for the midterm and final will be online. You must be at a computer during the assigned time to take your test. Please arrange your work schedule to be available for testing. If you have a class during testing, let me know.

### Course Exams:

Midterm

March 20, 8:00 pm – 10:00 pm

Final Exam

May 8, 8:00 pm – 10:00 pm

