



Dr. E.P. Scarlett High School

Mathematics 30-1 – AP



Teacher:

Semester: Fall 2022

School Year: 2022 - 2023

Contact Information:

School's Main Office: 403-281-3366

D2L: Additional materials and information for students regarding the course will also be available on D2L.

Credits: 5

Course Fee: No fee

Course Prerequisite: At least a 80% in Math 20 – 1AP and teacher recommendation

Course Description

This 5 credit course aims to build confidence in students by addressing cross-curricular competencies in the context of mathematics. The course will provide learning opportunities that will develop student competency in knowing how to learn, thinking critically, applying multiple literacies, identifying and solving complex problems, and demonstrating good communication skills. The course will enhance numeracy skills in students, develop their critical thinking and problem solving abilities, and set them up for success in future courses in mathematics.

Rationale

Inspiring Education has outlined the skills and attributes we expect students to possess as they graduate from high school. We want students to be numerate, have good communications skills, and be critical thinkers and problem solvers. The study of mathematics plays a pivotal role in developing these skills, and as such, it is important that students experience success in a high school math program that best supports their aspirations in high school and beyond. However, the study of mathematics is not a positive experience for all students. Some students struggle to make sense of mathematics as they experience gaps in previous learning and may require additional resources and strategies to fill in these gaps. While the required help is often within reach in their school environment, the one resource that is often lacking is time as the rate at which the content is covered may not allow for mastery learning of important skills.

This course aims to give these students an opportunity to be successful in mathematics and have them reach their full potential as engaged learners by providing them with additional strategies, resources and time.

General Outcomes for Math 30-1

Develop skills based on Relations and Functions

Develop skills in permutations, combinations and the binomial theorem

Develop skills in trigonometry

A more specific list of the outcomes covered may be found at:

<https://www.alberta.ca/assets/documents/edc-math30-1-assessment-standards-exemplars.pdf>

Outcomes Based Evaluation

We have combined Specific Outcomes into ideal groups as indicated in the following table and schedule.

Topic of Study	# Days	Weight %	Tentative AP Test Date	Tentative Test Date for Math 30-1
1) Function Operation and Polynomials	11	17%	Thursday September 15 th	Monday September 19 th
2) Transformations and Radicals	13	17%	Thursday October 6 th	Wednesday October 12 th
3) Trigonometry	19	22%	Thursday October 27 th	Wednesday November 9 th
4) Cumulative Exam #1	2	5%		Thursday November 17 th
5) Exponents and Logarithms	16	17%	Tuesday November 22 nd	Monday December 5 th
6) Permutations, Combinations, Binomial Theorem & Rational Functions	13	17%	Tuesday December 6 th	Thursday December 22 nd
7) Cumulative Exam #2 (Practice Diploma)	2	5%		Wednesday January 11 th

AP Content:

In both AP and Pre-AP courses, we will cover all of the general and specific outcomes of the regular course. We will also enrich many of the specific outcomes with a focus on the level of excellence. In addition, we will add other mathematical topics meant to enhance learning and provide students with an appropriate and enjoyable mathematical challenge.

Assessments: A variety of both formative and summative assessments will be used in our math classes. Students should expect assignments, quizzes, projects, unit and cumulative exams. Please note that summative assessments will play a major role in establishing a student's current grade.

PowerSchool: Marks in math are always cumulative. Marks will be updated on a regular basis. Ideally, parents and students should monitor their marks in PowerSchool after the completion of each unit.

Course Expectations: Students need to be aware that the course will move at a consistent pace, often covering a new outcome every day. It is critical that students diligently work on their assigned practice daily. It is normal to expect 45-60 minutes of homework in addition to the time provided in class.

Learning Resources

Textbook: Pre-Calculus 12

Some resources will need to be printed from the D2L shell. (For example – the notes package for each unit)

Required Equipment

A graphing Calculator is required for this course. The most recommended models are the Texas Instruments Ti-84 or Ti-83 and the Casio fx-9750 GIII. If a student has a graphing calculator for this course, they will be taught how to use it.

NOTE: The calculator must be on the approved list from the Alberta Education Website found here: <https://www.alberta.ca/assets/documents/edc-calculator-information-and-rules.pdf>

A binder, supply of paper, or notebook, and pencils will be required for each class.

Health & Safety

No directly related health/safety risks. If you have a health concern, please inform your teacher, any information shared is always confidential. For Example: allergies

Appendix I: Academic Integrity Policy

At Dr. EP Scarlett High School, we (staff and administration) are committed to providing assessments (whether assignments, quizzes, formal tests, and/or final exams), which assess a student's achievement of curricular outcomes.

Staff Responsibility

Staff will

- clearly communicate the expectations for academic honesty and the consequences (see below) of not being academically honest
- provide instruction on the proper means of citing other's work, to minimize unintended plagiarism
- take care in establishing a testing environment
- report to school administration and make note of incident(s) of academic dishonesty on the student's file
- Progressive Student Discipline will be adopted so that teachers, parent(s)/guardian(s), and administrators can help students take responsibility for their learning to achieve their academic goals

Student Responsibility

Students are expected to behave according to the CBE Student Code of Conduct. Students are expected to be academically honest in pursuit of their studies, whether through learning with their peers, completing class work, or in preparing for, and writing examinations. This includes avoiding plagiarism and cheating.

To be academically honest, a student must:

- refrain from copying another student's work
- use only materials which are permitted (as clearly stated by the teacher)
- refrain from communication during the testing session
- follow all communicated directions and expectations for papers and presentations, a student must:
- create and submit for marks original work that has been completed through their own efforts, or in the case of a group project, through their group's effort(s)
- credit the creative and intellectual efforts of others

Plagiarism

When ideas are taken from other sources without giving credit, this is known as plagiarism. Plagiarism is the unacknowledged use of somebody else's words or ideas.

Plagiarism is a serious academic offense and will be dealt with by the teacher and/or administration.

We expect our students to act with academic integrity, and to use their own knowledge to demonstrate authentic learning. Authentic learning occurs when students create and demonstrate their own knowledge. We expect our students to be honest and ethical in their schoolwork and in how they deal with others. Our teachers support students' authentic and ethical learning through teaching when and how to cite resources to acknowledge and respect the rights of creators.

Credit must be given when you:

- use or refer to somebody else's words or ideas from a magazine, book, newspaper, song, TV program, movie, web page, computer program, letter, advertisement, or any other source
- use information gained through interviewing another person
- copy the exact words from somewhere
- paraphrase the written work of others
- use any diagrams, illustrations, charts, and pictures that are not your creations

No credit is required when you are:

- writing your own experiences, your own observations, your own insights, your own thoughts, your own conclusions about a subject
- using common knowledge, common sense observations, or shared information
- using generally accepted facts
- writing up your own experimental results

Cheating

Absolutely no cell phones or personal electronic devices are allowed during exams or testing situations. These devices must be turned off and placed in your backpack; or not brought into the class at all during exams. This is in accordance with Alberta Education Diploma Rules and Regulations. Failure to comply – such as having a phone or personal electronic device on your person during an exam or quiz will invalidate your exam.

Academic Misconduct includes, but is not limited to:

- cheating or helping others to cheat. Forms of cheating include the use of unauthorized materials such as: cheat sheets or notes and/or on-line sites for essays, sharing answers
- copying, communicating with others, which includes but is not limited to: whispering, passing notes or other materials, signaling, exchanging papers, texting answers, posting questions or answers on social media
- writing quizzes, tests or exams for others
- using calculators inappropriately (ex. storing data prior to a test or information from a test afterwards)
- use of text messaging on a cell phone or other device
- inappropriately accessing the internet or computer files □ allowing another person to copy one's work or answers
- failure of protect your work from being copied
- discussing an exam before instructed by a teacher that it is permitted to do so
- altering the mark or answers on assignments, tests or quizzes marked in class

Consequences

Academic misconduct is a serious offence. Depending on the severity of the violation, the offending student may suffer any or all of these consequences in consultation with the subject Learning Leader and/or Administrator's discretion. Penalties include, but are not limited to:

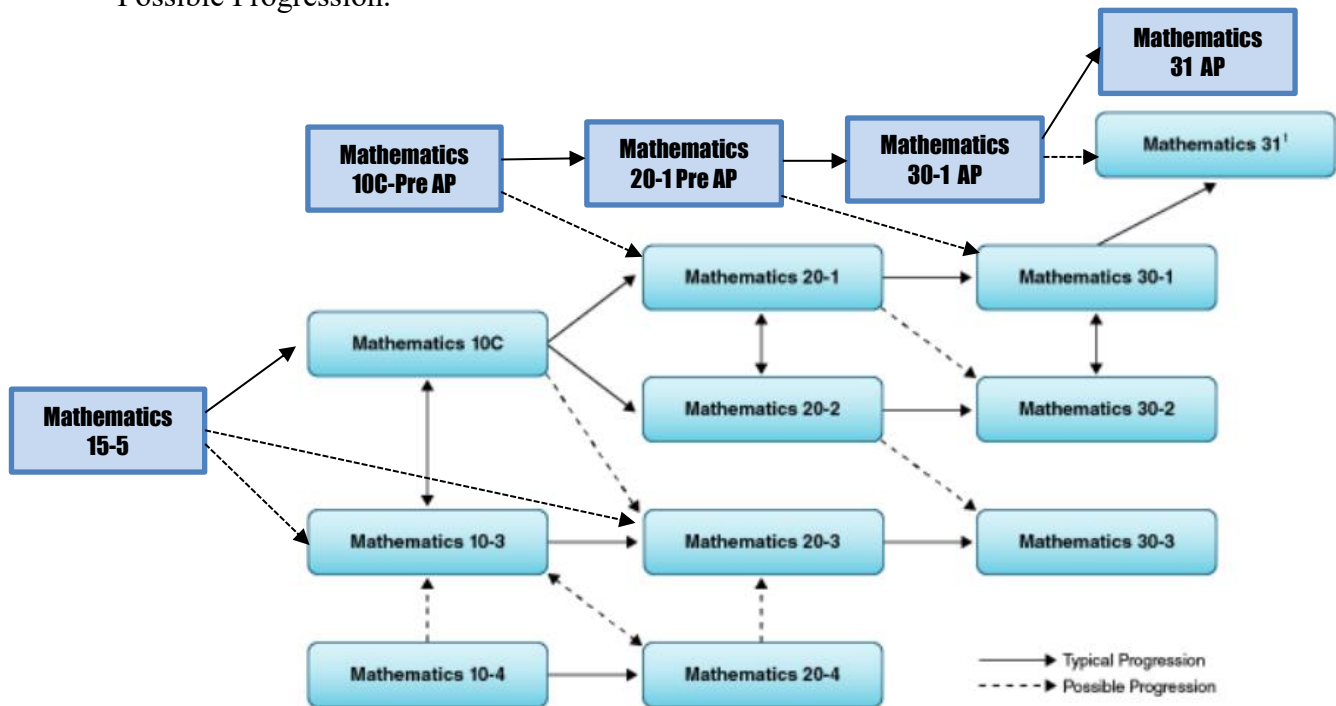
- notation on the student's file describing the offence
- zero grade on work involved
- removal from course and loss of credits
- referral to the administrator
- loss of computer access
- school suspension
- recommendation for expulsion

Appendix II: Course Progression and Recommendations

Teacher will communicate course recommendation to students and their parents/guardians throughout the semester and will make a formal recommendation for next course sequence on the final report card comment.

Recommendations are based on demonstrated mastery of curricular objectives, school policies, and the best student success in the future.

In the diagram below, you can see arrows indicating both “Typical Progression” and “Possible Progression.”



NOTE: Our department policy for base recommendations is as follows:

For Math 31: 70% in Math 30-1

For Math 31AP: Teacher Recommendation

For students who are enrolled in or recommended for the -2 designation of a course sequence, it is still possible to earn credits for -1 designation as long as the student completes the required pre-requisite courses in the course sequence. The preferred path for all students is to complete graduation requirements before concerning themselves with upgrading for post-secondary reasons. This path provides several benefits, including ensuring that students meet the Alberta High School Diploma requirements, providing students additional time to develop required skills, as well as providing additional experiences for preparing students for life after high school.

Appendix III: Guidelines for Academic Tutoring

The guidelines below apply to anyone (tutors, parent(s)/guardian(s), siblings, peers, etc.) or any software (Grammarly or other writing websites or apps) that helps you to improve your work on assignments.

Assignments (in Google docs) that you are handing in for marks should not be shared with anyone other than your teacher until after your assignment is marked, unless otherwise instructed by your teacher.

Please note that there should be no need for engaging the services of a tutor to succeed in this class. You are provided with opportunities to request and receive additional help and feedback outside of normal class times to improve your skills and succeed in this class – Core Help and Success Time.

However, sometimes students prefer to work with a tutor rather than request help from their teacher. Some reasons for students choosing to solicit additional help from a tutor are:

- having a designated “homework” time in order to establish accountability and maintain a schedule
- providing reassurance regarding work
- helping to fill skill gaps that have developed over the years

All of these outcomes and needs can be filled by requesting additional help from your teacher, with the exception of the first.

If you are considering working with a tutor, due to conflicts of interest and professional liability your teacher cannot recommend a tutor (or test prep course) for you.

If you are considering soliciting the help of a tutor, please be aware of the following guidelines for their work and share these guidelines with them.

Terms:

- *Proofreading*: reading an assignment before it is submitted in order to provide feedback without making explicit corrections or directly modifying your work
- *Reviewing*: looking at an assignment (and feedback provided) that has already been assessed and discussing it with you or providing additional information about that assignment □ *Editing*: making, or explicitly advising about, direct changes to your work

What your tutor can help you with:

- reviewing old assignments that have already been marked and the feedback that has been provided to help you see what you need to improve and how to improve those aspects of your writing

- practice assignments based on practice topics provided in class, or based on other topics created by your tutor, to help you learn and refine your skills for writing assignments that will be assigned in class
- teaching and reviewing writing skills through activities and assignments created by your tutor
- teaching and reviewing strategies and concepts related to literary analysis and/or reading comprehension skills for texts provided by your tutor or practice texts provided in class
- teaching and reviewing assigned literary texts to help improve your reading comprehension strategies and/or your understanding of the texts you are assigned to read in class (or texts you have been given the option to read in class)
- proofreading an assignment you are planning to hand in and:
 - making general suggestions about aspects of your work you should revisit (for example, “You should review strategies for clearly communicating a thesis statement” or “You need to review your notes about choosing, interpreting, and explaining supporting evidence and then reassess what you’ve written in your second paragraph”)
 - asking prompting questions about your work (for example, “How does your second quotation relate to your thesis?” or “How could you more clearly articulate your interpretation of the cliff symbolism?”)
 - suggesting and helping you to learn and use new planning, writing, revising, and editing strategies

What your tutor cannot help you with:

- any part of any assignment that will be handed in for marks in the future where the tutor tells you what to write (Ex. “You need to change your second quotation to . . .” or “When you explain the symbol of the cliff you should write . . .”)
- adding to, deleting, or modifying your writing
- revising or editing your work for you
- writing material for you, including parts of, or entire, responses or assignments
- sharing writing ideas (Ex. “You should write about “The Bog Man” for that topic” or “For that section of the notes, you should use the conflict between . . .”)
- giving specific feedback on how to improve your writing (for example, “You need to add a comma after that word and a period after that word” or “You can fix grammatical agreement in that sentence by changing “was” to “is”)
- reading, analyzing, and/or discussing any text(s) that are provided as part of a test or quiz (unless you have been given written permission from your teacher to discuss those texts/that test)

Teacher/Tutor Communication

Your teacher’s job is to teach you, not your tutor. Due to laws governing privacy, your teacher cannot directly interact or communicate with a tutor about your work or skills. Your teacher can only communicate with you and your legal parent(s)/guardian(s) about your work or skills.