# MAC 1140 Pre-Calculus Algebra

## Spring Session 2015

**INSTRUCTOR:**

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| Professor:  DON D. DREWOffice:  SA 218Phone:  (727) 341-4680Office Hours: MW 7:30 – 8:00, 10:45 – 12:30, TTH 7:30 – 8:00, 10:45 – 12:30 ANGEL email is the preferred method of communication outside of office hours. |

**MATHEMATICS DEPARTMENT:**

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| Dean:  Jimmy ChangOffice:  SP-SA 215Phone:  (727)341-4305Chair(or Program Director): David Kolonoski Office:  SP –SA 215 APhone:  (727) 341- 4757 |

**COURSE INFORMATION:**

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| **Course Description:**Prerequisite: MAC 1105 or appropriate score on mathematics placement test or program director approval. May be taken concurrently with MAC 1114. Major topics include: polynomial, rational and other algebraic functions, their properties and graphs; polynomial and rational inequalities; exponential and logarithmic functions, their properties and graphs; piecewise-defined functions; conic sections; matrices and determinants; sequences and series; mathematical induction; binomial theorem and applications. Credit is not given for both MAC 1140 and MAC 1106 or MAC 1140 and MAC 1147. 47 contact hours.**Course Goals:**1. The student will demonstrate understanding of relations and functions including conic sections by: a. communicating using precise mathematical language. b. determining the properties and graphs of given functions (polynomial, rational, exponential, and logarithmic and other algebraic functions). c. solving and graphing piecewise-defined functions. d. determining the properties and graphs of conic sections (circle, ellipse, hyperbola, parabola). 2. The student will demonstrate ability to solve and graph equations and inequalities and to use matrices and determinants by: a. solving and graphing polynomial and rational equations and inequalities. b. solving systems of equations by matrices and determinants. 3. The student will demonstrate ability to analyze and apply concepts of this course by: a. determining specific terms of arithmetic and geometric sequences and sums of series. b. proving a given statement by use of mathematical induction. c. expanding by the use of the binomial theorem. d. applying knowledge of given functions to real world problems such as curve fitting, modeling, optimization, exponential and logarithmic growth and decay.**Prerequisites:**MAC 1105 or appropriate score on the SPC mathematics placement test or program director approval. |
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**REQUIRED TEXTBOOK & TECHNOLOGY:**

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| * [Precalculus](http://www.pearsonschool.com/index.cfm?locator=PS1bFt&PMDBSUBCATEGORYID=&PMDBSITEID=2781&PMDBSUBSOLUTIONID=&PMDBSOLUTIONID=6724&PMDBSUBJECTAREAID=&PMDBCATEGORYID=806&PMDbProgramId=88921): Enhanced with Graphing Utilities, Sullivan, Sullivan, Sixth EditionISBN: 9780321795465
* Access to a computer and the internet
	+ ANGEL Requirements: <https://angel.spcollege.edu/default.asp>
* Graphing and scientific calculator (no cell phone calculator, subject to receiving a zero if used) TI-83 or TI-84 graphing calculators (or equivalent), which are highly recommended but not mandatory, may be used on all tests. However, calculators such as TI-89s, TI-92s and TI Nspires are not permitted.
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**MEETING INFORMATION:**

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| Course Location: SA 217Meeting Days: MWClass Times: 8:00 AM – 9:15 AM |
| IMPORTANT DATES:  (<http://www.spcollege.edu/calendar/>) |
| **COURSE POLICIES/ADDITIONAL INFORMATION:**Tardy Policy**:** TWO POINTS will be deducted for every tardy. POINTS will be deducted from the scores. Please sign the tardy sheet before taking your seat. Refusal to sign sheet = double the points**.** Cell Phone Policy: All cell phones must be turned off before entering the classroom. Ringing or vibrating cell phones disrupt the flow of class, distract others, and will cause you to lose points. While in the classroom, you cannot use your cell phone. This includes talking, texting, taking a picture, recording or videotaping the lecture. Points will be deducted from your test score for every time your cell phone rings, vibrates, or is used in the classroom. For all emergencies, please have the call made to the math office at 341 – 4605. Class Policy**: Students are responsible for following the tentative schedule.  See below.****Tutoring in math, reading, and writing is available free of charge in the Learning Support Commons. Please visit the web page at http://www.spcollege.edu/tutoring/ for more information.****Note: All OSSD students must provide appropriate documentation if they need special arrangements for testing.**ANGEL**:****In order to better serve our faculty and students we are asking that both the instructor and student use the logoff button when finished with the ANGEL session. By logging off, ANGEL server space is freed, and therefore, optimizing the system. In addition, logging off will more accurately record students’ time involved in the course.**Technical Support**:****SPC helpdesk:  (727)341-4357,** **onlinehelp@spcollege.edu** **or** [**http://www.spcollege.edu/helpdesk/**](http://www.spcollege.edu/helpdesk/) |

**ATTENDANCE:**

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| The college-wide attendance policy is included in the Syllabus Addendum <http://www.spcollege.edu/webcentral/policies.htm>. The policy notes that each instructor is to exercise professional judgment and define “active participation” in class (and therefore “attendance”), and publish that definition in each syllabus.  If you do not attend class at all during the first week or at all during the second week of the session, the college will be informed that you are a “No-Show” and you will be automatically withdrawn. Students considering a voluntary “W” are expected to withdraw themselves no later than 3/25/2015 and must do so online in My SPC found at www.spcollege.edu. |

**WITHDRAW POLICY:**

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| It is the responsibility of the student to withdraw from the course themselves by the withdrawal deadline.  Any student wishing to withdraw from the course should do so online at: <https://my.spcollege.edu>.  In accordance with college policy, no student can withdraw from a course after the withdrawal deadline. Do NOT ask your instructor to withdraw you from the course.  It is your responsibility.Third attempts: Students attempting this course for the third time (or more) cannot withdraw (State of Florida regulation), and failing to meet the attendance requirement will result in a grade of WF. |

**GRADING:**

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| Tests = 50 %( lowest test score replaced by final exam if higher). Quizzes = 30 %( lowest quiz score replaced by final exam if higher)Final Exam = 20 %( exempt if average 90% and above) No make-up test/quiz (1st time) will be given. If you miss a test/quiz (1st time), the final exam will replace this test/quiz. You must have legal documentation from a doctor, court, etc. to make up all other missed tests/quizzes or receive a zero. Note: No letters from your parents. Any test, quiz, or assignment turned in late will result in a 25% deduction. All tests/quizzes/assignments must be done in pencil or receive a 25% deduction the 1st time, all others will result in a zero. Note: That includes your name also. DO NOT USE A PEN!Grading scale:

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| 90 or above A80–89 B70–79 C60–69 Dbelow 60 F |  |

NOTE:  Students receiving a D are strongly encouraged to repeat this class.UNDER NO CIRCUMSTANCES will a student receive a W grade after the withdrawal deadline. Students on their third attempt cannot withdraw from the class after the first week. |

**TENTATIVE SCHEDULE**

**DATES SECTIONS/REVIEWS/TESTS/QUIZZES**

**1 – 12 4.1**

 **14 cont. – 4.1, 4.2**

 **19 MLK HOLIDAY**

 **21 QUIZ #1- 4.1, cont. – 4.2, 4.3**

 **26 cont. 4.3, 4.4**

 **28 QUIZ #2 – 4.3, cont. – 4.4, 4.5**

**2 - 2 cont. – 4.5, 4.6**

 **4 cont. – 4.6, REVIEW #1**

 **9 TEST #1**

 **11 5.3**

 **16 cont. – 5.3, 5.4**

 **18 QUIZ #3 – 5.3, cont. 5.4, 5.5**

 **23 cont. – 5.5, 5.6**

 **25 QUIZ #4 – 5.5, cont. – 5.6, 5.7**

**3 - 2 cont. – 5.7, REVIEW #2**

 **4 TEST #2**

 **9 SPRING BREAK**

 **11 SPRING BREAK**

 **16 10.2, 10.3**

 **18 cont. – 10.3, 10.4, REVIEW #3**

 **23 TEST #3**

 **25 11.2**

 **30 cont. – 11.2, 11.3**

**4 - 1 cont. – 11.3, 11.4**

 **6 QUIZ #5 – 11.2, cont. – 11.4, 11.5**

 **8 cont. – 11.5, 11.6**

 **13 cont. – 11.6, REVIEW #4**

 **15 TEST #4**

 **20 12.1, 12.2**

 **22 12.3, 12.5, REVIEW #5**

 **27 TEST #5**

 **29 FINAL EXAM REVIEW**

**STUDENTS’ EXPECTATIONS:**

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| Course Policies and Procedures:The student is responsible for knowing all course policies listed in the syllabus.Etiquette:The student will communicate with others in a courteous and respectful manner at all times, including the instructor.Academic Honesty:The student is expected to know the SPC Academic Honesty Policy and to act above suspicion at all times with regard to academic issues. |

**STUDENT SURVEY OF INSTRUCTION:**

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| The student survey of instruction is administered in courses each semester.  It is designed to improve the quality of instruction at St. Petersburg College.  All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement. |

**SYLLABUS ADDENDUM:**

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| Please visit the Syllabus Addendum web page at <http://www.spcollege.edu/webcentral/policies.htm> for the most current information and policies. |