

CORNING COMMUNITY COLLEGE
(Horseheads High School ACE)
MPTE
Spring 2015

Course Prefix/Number: Math1620, Calculus II

Instructor Name: Anthony Bo

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Instructor Office Location: Horseheads High School – Room 217

Instructor Office Hours: Monday – Friday: Period 5-6 (10:46am – 12:06pm)

Introduction:

ACE Calculus II (Math 1620) is a college level course and will be taught as such. In order to successfully meet the objectives of the course it is expected that students will take on certain responsibilities. These responsibilities include, but are not limited to:

- Keeping a neat and complete notebook
- Attending every class
- Completing every assignment
- Seeking out additional help beyond that provided during class
- Maintaining the highest degree of academic honesty

Text Book:

Larson, Ron, and Robert Hostetler, and Bruce Edwards. Calculus of a Single Variable, 8th edition. Boston, MA: Houghton Mifflin, 2006.

Calculator:

A graphing calculator is required. TI-83/84 is highly recommended. Calculators with Computer Algebra Systems are NOT allowed (TI 89, TI 92 etc).

Course Objectives:

1. Demonstrate understanding of the definitions of the natural logarithmic function, the hyperbolic functions, improper integrals, and sequences, series, and power series.
2. Determine derivatives and integrals of transcendental functions.
3. Demonstrate the ability to apply techniques of integration such as; integration by parts; trigonometric substitution; partial fractions; and integration by tables.
4. Determine the convergence or divergence of infinite sequences and infinite series.
5. Determine power series representations of functions and apply calculus operations to the power series.
6. Perform calculus operations on conics, functions defined parametrically, and functions defined using polar coordinates.
7. Use a Computer Algebra System (CAS) to solve application problems involving transcendental functions, techniques of integration, series, and polar coordinates.

Homework & Board Problems:

A homework assignment sheet will be provided at the beginning of each unit. Each assignment will consist of 4 even numbered exercises and a varying quantity of odd numbered exercises.

Homework will be collected and graded as follows: Even numbered problems will be worth 2 points each plus an additional 2 points will be awarded for the completion of the odd numbered exercises. *Exercises will be considered incomplete if no work is provided.*

It is the students' responsibility to ensure that homework is done completely and correctly. Due to limited class time, the discussion of solutions to the odd numbered problems will be minimal. Therefore, it is expected that students will seek help outside of class for the odd numbered problems.

Four Students will be selected at random at the beginning of class to provide solutions to the even numbered problems (Board Problems). A separate grade will be given at the end of each marking period based on the completion of the board problems.

Tests & Quizzes:

Quizzes will be given regularly and they may be unannounced. *Quiz questions will typically be similar to questions assigned in the homework.* Therefore, it is to the student's advantage to maintain complete and correct homework assignments.

A unit test will be given at the end of each unit.

Competency Assessments:

Competency assessments will be given through out the course. There are three types: Component Competency, Final Exam Competency, and Lab Competency. Details on each type of competency can be found on the "Competency Assessment" handout.

Final Exam:

A three hour final exam will be administered at the end of the course. **The exam will take place on the first day of Regents testing.** The final exam will consist of one section created by CCC and two additional sections created by the HHS math department.

Grades:

Tests	60%
Quizzes	25% (<i>minimum 3 quizzes given = lowest quiz grade dropped</i>)
Homework/Labs	10%
Board Problems	5%

Final Course Grade: Average of 4 marking period grades + 1 final exam grade.

Academic Honesty:

Academic dishonesty and cheating will not be tolerated. Students are expected to follow the academic honesty guidelines set forth by Horseheads High School. Disciplinary actions for cases of cheating and plagiarism will be handled in accordance with Horseheads High School policy.

Additional Help:

I am available for additional help during my 5/6 lunch period and after school. Students wishing to meet with me after school should make arrangements with me in advance. My teacher web page, which can be accessed through the Horseheads High School web site, contains links to a variety of additional calculus resources.

Competency Assessments

Component Competency:

A competency assessment will be given in each of the three core components of Calculus II: Differentiation, Integration, and Series. Students will be allowed to retry any competency assessment not met, until they reach competency. **Competency is obtained by completing a component with a minimum score of 90%.** No student will receive a passing CCC grade for the course without achieving competency in all three component areas.

Scoring – Each question will be worth 4 points scored as follows:

- 4 – No more than 1 minor error (*Exceeds Standards*)
- 3 – More than 1 minor error in the details (*Meets Standards*)
- 2 – Demonstrates the concept, but at least one serious problem with the details (*Approaches Standards*)
- 1 – Somewhat demonstrates the concept, but little else (*Below Standards*)
- 0 – Demonstrates no knowledge of the concept (*Below Standards*)

Final Exam Competency:

The final exam will have a competency component consisting of 6 questions that are concept driven (i.e. word problems, analyzing graphs, etc.). Students will have only one attempt at obtaining competency on the final exam.

Scoring – Each question will be worth 4 points scored as follows:

- 4 – No more than 1 minor error (*Exceeds Standards*)
- 3 – More than 1 minor error in the details (*Meets Standards*)
- 2 – Demonstrates the concept, but at least one serious problem with the details (*Approaches Standards*)
- 1 – Somewhat demonstrates the concept, but little else (*Below Standards*)
- 0 – Demonstrates no knowledge of the concept (*Below Standards*)

Lab Competency:

The lab component requires the use of a computer algebra system. There will be a minimum of 3 labs completed throughout the course.

Scoring –

- 4 (min 90%) – Lab is completed following correct lab procedures and only contains a few minor errors.
- 3 (min 80%) – Lab is completed, but does not follow lab procedures, contains many minor errors, or contains 1 major error.
- 2 (min 70%) – Lab follows lab procedures, but is only partially completed, or the lab is completed with 2 major errors.
- 1 (min 60%) – Lab content has serious problems.
- 0 (below 60%) – Lab is completely unreadable.

Mr. Bo's Classroom Rules & Expectations

Classroom Rules:

1. Be **RESPECTFUL** to everyone.
2. Be **RESPONSIBLE** for your own learning.
3. Be **READY** to learn.

Expectations: Each day Mr. Bo expects you to:

1. Come to class on time.
2. Come to class with all your materials.
3. Use appropriate behavior and language at all times.
4. Ask for a pass before leaving the room during class time.
5. Use class time given for starting homework to start homework!
6. Complete all assignments on time.
7. Make up all missed assignments.
8. Seek out extra help when you need it.
9. Refrain from using restricted electronic devices (**cell phones & Ipods!**)
10. Abide by the school academic honesty code.

Consequences:

1. Verbal warning.
2. Detention.
3. Parent phone call.
4. Conduct form.
5. Removal from class.

Tardiness & Truancies

- You will receive a warning the first time you come to class late without a valid hall pass and then a detention anytime thereafter.
- Excessive Tardiness will result in a conduct form.
- Truancies will not be tolerated and will result in an immediate conduct form. You will receive a zero on any assignment or test that is missed due to truancy.