AMBROSE UNIVERSITY COLLEGE | FACULTY OF ARTS & SCIENCE

COURSE INFORMATION SHEET

MATHEMATICS 111- Linear Algebra

Lecture:	Tuesdays and Thursdays	1:00 PM – 2:15 PM	A2133
Tutorial:	Monday	1:00 PM – 2:15 PM	A2131

Calendar Description: (3-1) B

This course teaches linear equations, matrices, and vectors with elements and applications to coordinate geometry.

Prerequisite: Math 30

Instructor: John Wiest
E-mail: jwiest@ambrose.edu
Office: L2050

Hours: Monday: 1:00PM-3:00 PM, Friday: 1:00 PM-2:30 PM, or by appointment.

Text: *Linear Algebra With Applications (7th Ed.)*
W. Keith Nicholson
McGraw Hill

Attendance:

Students are expected to attend all lectures and tutorials to ensure success on quizzes, exams, and assignments. All quizzes will be administered during tutorial hours. Students not attending lectures may find themselves missing information not covered in the textbook. Any student who is absent for a quiz or exam should speak to the professor and, where possible, provide a doctor's note.

Course Information

The course consists of 2½ hours of lecture and 1¼ hours of lab/tutorial per week. As mentioned above, quizzes will be written during lab/tutorial hours. The best 4 marks on quizzes will be taken in for grades. Otherwise, the tutorial is a space where students will be invited to practice and demonstrate their growing knowledge of the course material. The course content will be drawn from the first four chapters of the textbook, drawing from : Systems of Linear Equations, Gaussian Elimination, Homogeneous Equations, Network Flow, Chemical Reactions, Matrix Algebra, Matrix Inverses, Markov Chains, Determinants, Cofactor Expansion, Diagonalization , Linear Recurrences, Vectors and Lines, Projections and Planes, Cross Products, Matrix Transformations.

Learning Objectives:

By the end of the course, students should

1) Understand and be able to utilize the Gaussian Algorithm to solve many different problems relating to systems of linear equations.
2) Develop fluidity in matrix algebra and understand its relation to Markov Chains and other mathematical models.
3) Be able to compute eigenvalues, eigenvectors, and diagonalized forms of matrices.
4) Be able to apply the concepts of linear algebra to the $\mathbb{R}^3$ vector space

Marking:

Quizzes (best 4 out of 5)		30%
Midterm		30%
Final	(cumulative)	40%

Grading Scheme

A+	96-100%		
A	90-95%	C	63-66%
A-	85-89%	C-	60-62%
B+	80-84%	D+	54-59%
B	76-79%	D	50-53%
B-	70-75%	F	Below 50%
C+	67-69%		

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Student Handbook and Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a "Course Extension" from the Registrar's Office. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the appropriate deadline (as listed in the Academic Calendar http://www.ambrose.edu/publications/academiccalendar). Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control."

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean.

Students are advised to retain this syllabus for their records.

Course changes, including adding or dropping a course, may be made during the Registration Revision period, as outlined in the Calendar of Events. All course changes must be recorded on a Registration form, available from the Office of the Registrar. Due to circumstances such as class size, prerequisites or academic policy, the submission of a Registration form does not guarantee that a course will be added or removed from a student's registration. Students may change the designation of any class from credit to audit up to the date specified in the Calendar of Events, although students are not entitled to a tuition adjustment or refund after the Registration Revision period.

Withdrawal from courses after the Registration Revision period will not be eligible for tuition refund. Students intending to withdraw from some or all of their courses must submit a completed Registration form to the Registrar's office. The dates by which students may voluntarily withdraw from a course without penalty are listed in the Calendar of Events. A grade of 'W' will be recorded on the student's transcript for any withdrawals from courses made after the end of the Registration Revision period and before the Withdrawal Deadline (also listed in the Calendar of Events). 'W' grades are not included in grade point average calculations. A limit on the number of courses from which Academic a student is permitted to withdraw may be imposed. Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Office of the Registrar in writing within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of $50.00 must accompany the appeal to review final grades. If the appeal is sustained, the fee will be refunded.

Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from Ambrose. Students are expected to be familiar with the policy statements in the current academic calendar and the student handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

The following is a list of important dates for this course.

Date	
Jan. 08	First Lecture
Jan. 09	Convocation Chapel
Jan. 19	*Last day to enter course without permission, withdraw from a course; change to audit and receive tuition refund*
Jan 20	**Quiz 1**
Jan. 30	Program Day
Feb 3	**Quiz 2**
Feb 3 - 4	Downey Lectureship
Feb 13	**Quiz 3**
Feb. 17	Family Day (No Tutorial)
Feb. 18 - 22	Mid-Semester Break (No Classes)
Feb. 25	*Returning Scholarship Deadline*
Feb. 26	Deans' List Reception
Feb 27	**MIDTERM EXAM**
Mar. 03	*Last day to request revised time for a final examination*
Mar. 05	Global Impact Day
Mar. 10	**Quiz 4**
Mar. 14-16	Youth Legacy Conference
Mar. 21	*Last day to withdraw from courses without academic penalty*
Mar 24	**Quiz 5**
Mar. 31	Ambrose Research Conference
Apr. 10	Last day of classes.
Apr. 18	Good Friday (no EXAMS)

Final Exam: Saturday, April 19th, 9:00AM – 12:00PM, A2133