

ALEKS Math

School Year 2010 - 2011
Aquino Junior Senior High School - Library

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I. Course Overview:

Assessment and Learning in Knowledge Spaces is a web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course. ALEKS then instructs the student on the topics s/he is most ready to learn. ALEKS is fully aligned with Illinois and National Council of Teachers of Mathematics (NCTM) standards.

II. Format:

This course is entirely web-based, giving the students the possibility to work on their math skills 24 hours a day, seven days a week!

Initially, the students will be given a comprehensive assessment to place them within their course. The students will then enter into "Learn" mode for the remainder of the week. At the beginning of each week, each student will take an assessment covering the concepts they learned the previous week.

As a student in ALEKS works completely at his/her own pace, it is important that there is an environment outside of class (e.g., at home) which provides a discipline and routine for the student to regularly use ALEKS. This course is an opportunity for students to develop self-discipline and discovery habits.

There is no assigned homework in this class. However, it is **expected** that each student will spend additional time, outside of class, working on ALEKS (see Grading Scale and Weighting).

III. My Assumptions

"It takes no talent to try". The students have already heard me say this many times. As far as in-class rules and behavior are concerned, I only expect two things: **that the students TRY...**that they put forth the best effort that they have, and; that the **students are respectful of everyone** in the classroom. I do not tolerate anything less

than these two simple expectations.

IV. Class Procedures

Because the students will be largely working independently, it is expected that they will come to class, log on to their computer and begin their course work. Students can raise their hand for teacher assistance, but they must first attempt to learn the concept by using the ALEKS “Explain” button and other internet resources available.

Many students have found that taking notes while learning concepts is an effective way to retain the material. In addition, the weekly assessments are “open book”, so these notes may be used.

Tardy

It is expected that students will be at their assigned computer, with scrap paper out and ready to do their work, by the final bell. If a student is tardy to class, they must sign in on the Tardy Sign-In Sheet.

V. Grading Scale and Weighting

Students using ALEKS will be expected to work hard, learn and accomplish, and retain what they learn.

Students will receive three grades per week. These are designed to balance out working hard with effective learning. In other words, the students will be expected to use ALEKS a number of hours per week. A grade will be given based on **how many hours per week** the student uses ALEKS. To be a counter balance to this grade, the students will also receive one grade based on how many **math concepts they learn per hour** and one based on how they **progress in a certain week and absolute progression toward completion of their course**.

At the completion of the school year, or when a course is completed, the student will be given a comprehensive assessment covering all materials in the course to assess the student's retention of the concepts.

Overall Grade Weights

Category	Weight
Work Hard	25.00%
• hours per week	
Work Effectively	20.00%
• concepts per hour	
Make Weekly Progress	30.00%
• relative progression	
Make Absolute Progress to Complete Course	15.00%
• weekly assessment	
Retain	10.00%

Work Hard

Time spent per week (25% weight)

There will be 3.3 hours of ALEKS per week in class. Each student is expected (as homework) to spend additional time outside of class (at home, 10th hour, etc.). If a student works in ALEKS 30 minutes, each day, outside of class, s/he will accumulate six hours in a week.

Grade	Total Hours / Week
A	5.6 - 6.0
B	5.0 - 5.5
C	4.6 - 4.9
D	4.2 - 4.5

Work Effectively

Concepts Learned per Hour (20% weight)

Grade	#
A	2.3 - 2.5
B	2.1 - 2.2
C	1.9 - 2.0
D	1.7 - 1.8

Make Weekly Progress

Relative Progression (30% weight)

The student's progression as a ratio of concepts mastered to concepts remaining.

$$\frac{\text{\# concepts mastered this week}}{\text{\# concepts remaining}}$$

Grade	%
A	9.3%
B	8.4%
C	7.7%
D	7.0%

Make Absolute Progress to Complete Course

Weekly Assessment (15% weight)

At the beginning of each week, the students are given an assessment, covering the concepts they learned the previous week. Concepts shown to be mastered from the assessment are permanently added to the students "pie" and are not required to be reviewed. Therefore, it is the collection of weekly assessments that progress a student toward completion of the course pie.

The result of the weekly assessments can be viewed by clicking on the student's "Report", then selecting "Full Progress over the last month". The assessment results are shown by the blue bar in the report.

If a student does not progress forward or backward from one assessment to the next, the student will receive a grade of "77". Any positive progression will be given a grade higher than 77 but no higher than 100. Any digression, will be graded less than 77.