# ATYP Math 1 – 1st and 2nd Year Algebra 2009-2010

***Instructor***: **Mrs. Beth Myer** Phone: 269- . . . . . .
Email: **beth.myer@wmich.edu**
Class Meeting: 1320 Trimpe Hall, WMU; Tuesdays, 1:20 – 3:50 pm.
***Grader***: **Kevin Dugal** Email: **Kevin . . . . . .** Phone: 269- . . . . . .

***Texts*:** Algebra I and Algebra 2, Prentice Hall Mathematics-High School Math Series by Bellman, Bragg, Charles, Hall, Handlin & Kennedy, 2007

***Goals*:** A thorough mastery of algebra, the language of science, business and life, to allow us to study the relationships between variables. Our approach will be analytical, graphical, and experimental – the latter two enhanced by use of graphing calculators.

***Homework*:** Mastery will come from doing the homework problems – roughly 60 – 80 per week; five to eight hours each week.
*Before attempting the HW problems from a new section, read that section for understanding. Keep your papers neat, starting each problem at the left margin, *showing all steps*, and boxing/highlighting your answers.
*Calculators may be employed as tools to check or enhance the learning process. If a calculator is used as part of the solution process, you are still required to clearly write the procedure you used and/or draw a sketch of your graphing screen.
*Staple your HW in order before coming to class.
*Homework problems are on the attached page (syllabus). About 20% of the HW will be graded each week. The HW **solutions** will be returned in a timely fashion to allow the student feedback on the problems. To assist in feedback to the student, the assignments have an overlap of sections from one week to the next. There are also weekend help sessions scheduled by the HW grader, **Kevin Dugal**, to help with HW related questions. This is like a second math class each week!

***Exams*:** The first two and the fourth and fifth exams are one-plus hour exams written by the instructor and administered during the class period on the days indicated. The exam's grade is weighed equally with the average of the previous six HW assignment grades. The final exams in January and June are the latest MI Standardized final exams and administered during the last class period/s. Exams are typically given in class.

***Class Meeting*:** When students arrive *before* class, they write on the board the number and sections of those problems they could not solve on their own, after discussions with a classmate or with the grader. We spend no more than 20-30 minutes discussing related problem solving. So it is important to work out most problems *before* class time. We then go over new material in a discovery oriented way. Examples are given and the students are encouraged to discover the general principle. This longer period of time (120 minutes) is interrupted by a 15-minute break where the students are allowed to get food or drink (must stay on campus).
* Students are expected to behave in a manner that shows respect for the ATYP program and the university facilities. Students must clean up any trash that has accumulated during class.

***Grading*:** To obtain credit for the course, students are expected to perform satisfactorily on both homework and exams. **Grades**: **A** (80 – 100), **BA** (76 –79), **B** (60 – 75). Homework and exam averages will be calculated separately, then together. Both averages must meet the minimum requirements. Other factors, such as class performance and class discussion, will assist the instructor in assessing the student's understanding of content. Final evaluations will assess the student's overall comprehension of the content. HW falling below 60% three times indicates that the program might not be suited to the student. Conferences with the parent(s) and teacher will be necessary and the decision may be to dismiss the student from the program.

***Responsibility*:** Homework must be turned in on the day of the class even if you are absent. Try to find a person to buddy with that will bring in your homework and tell you any notes/announcements made in class if you are absent. *Remember, being absent for ATYP is the equivalent of missing an entire week of your home school. Too many absences will affect your grade and may require you to drop out of ATYP. Homework is not optional.
**** *Absence*** from class must be reported by a parent before class, not a classmate. (Refer to "Rules and Responsibilities for ATYP Students Enrolling in ATYP Classes".)

Please let me or the grader know if you are having questions or any kind of problems with this course. Difficulties are easier dealt with early before they turn into a mountain of worries. I want you to succeed! Let me know how you are doing! Phone calls are welcome at anytime before 10:00 p.m. from both students and parents. You can e-mail me at any time.

Until I get to know your e-mail addresses, please include "atyp" somewhere in the subject area. I have kids and a husband at home. If I do not answer or am not at home, please leave your name, phone number, and best time to call back. I will call or e-mail as soon as I am able.

***HW Graders*** are high school or college students assigned to each ATYP Math class. They are usually several years out of the ATYP program and were in the top of their classes. Graders will check your weekly assignments, lead Sunday help sessions (an excellent opportunity to get ahead), and are available for help over the phone. Our grader is a senior at Kalamazoo College, high-performer in his years of ATYP classes, at Kalamazoo Central and KAMSC.

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| **HW Grader:** Kevin Dugal | **Instructor**- |
| **Study Session:** 5 – 6:00 PM Sundays, Room 1030-LHC | Beth Myer |
| **Phone:** 269- . . . . . **Phone-In Hour**: Monday, 7-8:30 pm | 269- . . . . |
| **Email: Kev** . . . . . | **Beth.myer@wmich.edu** |

* There will also be a grader from the other Algebra I/II class from 6 – 7 PM in the same room at LHC. If that time fits better into your schedules, attend when you can, as often as you can.

**Algebra I Course Outline**

**HW Grader:** Kevin Dugal
**Email:** kev . . . . . .
**Phone:** 2 . . . . . .
**Study Group** Sundays, 5 – 6 p.m. at LHC

**Instructor:** Beth Myer, beth.myer@wmich.edu
**Class:** Tuesdays, 1:20-3:50 PM
Room 1320, Trimpe Hall

**Text: Algebra I, Prentice Hall Mathematics High School Math Series by Bellman, Bragg, Charles, Hall, Handlin & Kennedy, 2007**

The following course outline will allow us to cover all the Michigan Grade Level Content Expectations for Algebra I. Homework problems do not include Test Prep or Mixed Review problems, just the section Practice and Problem Solving exercises. We will be skipping sections 3.7, 3.9, 5.1 and 11.5-11.6. *Subject to change per teacher notification.

| Week(class date) | New Sections Covered | Problems | Homework Sections (due date) |
|---|---|---|---|
| 1 (9/15) | 1.1 – 1.6+vocab | 2, 12, 22, … | 1.1 – 1.6, ABC's + WS (9/22) |
| 2 (9/22) | 2.1 – 2.5 " | 4, 14, 24, … | 1.1 – 2.5 ABC's + WS (9/29) |
| 3 (9/29) | 2.6 – 3.3 " | 6, 16, 26, … | 1.1 – 1.6 BC's<br>2.1 – 3.3 ABC's (10/6) |
| 4 (10/6) | 3.4 – 3.6, 3.8, 4.1<br>(3.9 EC opp.) " | 8, 18, 28, … | 2.1 – 2.5 BC's (10/13)<br>2.6 – 3.6, 3.8, 4.1 ABC's |
| 5 (10/13) | 4.2 – 4.6 | 2, 12, 22, … | 2.6 – 3.3 BC's (10/20)<br>3.4 – 3.6, 3.8, 4.1– 4.6 ABC's |
| 6 (10/20) | 5.2 – 5.6 "<br>(skip 5.1) | 4, 14, 24, … | 3.4–3.6, 3.8, 4.1 BC's,<br>4.2 – 5.6 ABC's (10/27) |
| 7 (10/27) | 5.7 – 6.4 "<br>EXAM - Oct 27 | 6, 16, 26, … | 4.2 – 4.6 BC's<br>5.2 – 6.4 ABC's (11/3) |
| 8 (11/3) | 6.5 – 7.1 " | 8, 18, 28, … | 5.2 – 5.6 BC's<br>5.7 – 7.1 ABC's (11/10) |
| 9 (11/10) | 7.2 – 7.6 | 2, 12, 22, … | 5.7 – 6.4 BC's<br>6.5 – 7.6 ABC's (11/17) |
| 10 (11/17) | 8.1 – 8.5 " | 4, 14, 24, … | 6.5 – 7.1 BC's<br>7.2 – 8.5 ABC's (12/1) |
| 11 (12/1) | 8.6 – 9.2 " | 6, 16, 26, … | 7.2 – 7.6 BC's<br>8.1 – 9.2 ABC's (12/8) |
| 12 (12/8) | 9.3 – 9.7 | 8, 18, 28, … | 8.1 – 8.5 BC's<br>8.6 – 9.7 ABC's (12/15) |
| 13 (12/15) | 9.8 – 10.4 "<br>EXAM – Dec 15 | 2, 12, 22, … | 8.6 – 9.2 BC's<br>9.3 – 10.4 ABC's (1/5) |
| 14 (1/5) | 10.5 – 11.1 " | 4, 14, 24, … | 9.3 – 9.7 BC's<br>9.8 – 11.1 ABC's (1/12) |
| 15 (1/12) | 11.2 – 11.4, 12.1, 12.2<br>" | 6, 16, 26, … | 9.8 – 10.4 BC's (1/19)<br>10.5 – 11.4, 12.1,12.2ABC's |
| 16 (1/19) | 12.3 – 12.6, part I of Algebra I final -1/21 | 8, 18, 28, … | 10.5–11.1 BC's (1/26)<br>11.2 – 11.4, 12.1 – 2.6 ABC's |
| 17 (1/26) | Part 2 of Algebra I final, start Algebra II – 1/26 | 2, 12, 22, … | (11.2-11.4, 12.1–12.6)←WS<br>+ Alg. 2, Ch. 1 (2/2) |

**Exam 1 – October 27** – Content material from 1.1 to 4.6. **Exam 2 – December 15** – Content through 9-2. No time limit.
**Final Exam** is a Michigan Standardized Exam covering all Algebra 1 content; calculators will be used. No time limits.

***Snow Days*:** If a snow day occurs on a Tuesday for Kalamazoo Public Schools, then ATYP will be closed. In that case, you are to work on the next homework assignment. You will turn in 2 homework assignments the week you return. If a test was scheduled on the snow day, expect to take the test on the week you return unless otherwise notified. If a test was scheduled for the day you return. I will let you know what we will do.

☺ **To help your self:**

- *Re-read the introduction* to the new sections for understanding.
- *Work through examples* step-by-step, thinking about why each change was made.
- Work an *odd numbered problem* adjacent to the even numbered problem (answers are in the back to help check your work).
- *Write out every step* in the solution process and check your work as you go.
- Follow the Internet links suggested in each section in the math book.
- Phone or e-mail (1) classmates, (2) grader, or (3) teacher for additional homework assistance. Have specific question number and section on hand.
- Attend the Sunday Help Sessions. Bring a list of sections or specific questions *you* want answered.

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***Homework Format:***

- Write as neatly as you can. Start problems at the left side of your pages.
- If it takes more than a step in your head, write the steps down. Highlight the answer with a box or hi-lighter.
- Try to keep sections and their problems in order.
- Skip a line between sections. Label, in the margin, when you are beginning a new section.
- You may want to write out the sections at the top of you HW page(s) to help keep track of which problems are required for the week. For ***example***,

**B. Myer**

**2.1 – 2.5 BC's, 2.6 – 3.6, 3.8, 4.1 ABC's** **ATYP HW (4) Due Oct.8**

**2 – 1**

**(28) 3x – 4 = 8, 3x = 12, x = 4**

**(38) x : 1 2 6 ← domain rule:**
**y : 3 4 8 ← range y=x+2**

**2 – 2** **etc…**

**2 – 6**

**(8) .33 ≤ .331**

**(18) (4y)(10y)(3x)= 40y$^2$(3x)= 120x$^2$y**

**(28) $|-14|^2 = (14)^2 = (14)(14) = 196$**

- If you like to work down as opposed to across, you may be able to do your work in two columns; labeled appropriately. Please make sure your work/thoughts will be clearly understood, for grading purposes. WRITE EVERYTHING DOWN.
- 14 problems are randomly picked to grade each week, up to 7 points for each. Show the steps for full credit!