Course Syllabus and Information
MTH 151: Mathematics for Elementary Teachers I
Spring 2015

Instructor: Dr. Tibor Marcinek   Office Hours: TT 12:30 – 1:30
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Text Book & materials to be furnished by the student:

1) Bennett & Nelson: Mathematics for Elementary Teachers: An Activity Approach. It is the **9th** Edition of the book. Bring the book to the class every day.

2) ETA hand2mind set of manipulatives (Set #79628: Ready to Teach Hands on Math K-9. It is a grey backpack with plastic manipulatives). The kit is essential for elementary school teachers and you will need it in MTH 152 as well. Available in the CMU bookstore. You will not need to carry the whole bag, only components I will announce in the class.

3) Paper manipulatives. You must have a set of paper manipulatives that you will be bringing to class every day. There are two ways to get them:

   a) You can download pdf files from my website, print them, carefully cut them out according to the instructions and organize them in zip-lock or paper bags. IMPORTANT: Don't use a plain paper. You must print in color and on a heavier paper that is at least 45 lbs (or 170 g/m2).
   b) You can buy the Paper Manipulatives Kit that accompanies the activity book (from the same publisher). The pieces are pre-cut. Separate them and organize them in the paper envelopes (included in the kit).

4) A calculator. If you are thinking of majoring or minoring in math, TI-73 TI-83+ or TI-84 is recommended. However for most of what we do in MTH 151, any calculator will work. Bring it every day.

5) Crayons or markers or colored pencils. Scissors (when announced).

Course Content:

Chapters from the book (1):
   Chapter 1:   Problem Solving
   Chapter 2:   Sets, Functions and Reasoning
   Chapter 3:   Whole Numbers
   Chapter 4:   Number Theory
   Chapter 5:   Integers and Fractions

Course Methodology:

The course is designed to meet the mathematical needs of those students who plan to teach elementary grades. It is based on the philosophy that mathematical ideas are learned only through active involvement. Therefore, in this course a lecturing is reduced to a minimum and teaching methodology includes small group activities and presentations and whole class discussions – the methodology you will be using to present mathematical topics to your students.

Attendance. It is an activity-based class. Therefore it is important to attend every day for entire class period with your homework completed so that you can take active part in group work activities. Attendance will be taken every day. If for some reason you must be absent, it is your responsibility to contact me <u>before</u> (in emergency situations on) the day you miss the class. If you contact me by e-mail, I will send you back copies of handouts and a homework assignment. You are allowed *three* excused absences. Each *unexcused* absence will lower your grade by five percent points.

Daily assignments. You are expected to complete all in and out of class assignments. I will not collect all your homework but I expect you do it and understand it. I encourage you to work together with other MTH 151 students. There will not be time in class to go over every homework problem so plan on coming to my office or contact me through e-mail if you have any questions regarding the assignment. Short (1-2 questions) unannounced quizzes may be given to monitor your home preparation.

Group work. You will be working in groups of 4 students. As a group, try to answer all the questions on worksheets or asked by the instructor and discuss how to present your answers to the rest of the class. Make sure that <u>*all*</u> group members understand it completely and that *any* group member is able to lead the presentation as the instructor will randomly select the presentation leader. If any group member has a question, try to resolve it within your group first. If nobody is able to answer and/or explain it to other group members, then ask the instructor. Please keep in mind that the instructor will be answering <u>*group questions*</u>, not questions of individual students.
It is the responsibility of each group to get all members on task and participate. Activity of all members counts towards your group grade, which will be explained in the class.

Presentations. Each group must have at least 15 satisfactory presentations during the semester. These presentations are typically explanations of the work done by the group and can take various forms. They usually take 3-10 minutes, depending on the task and discussion in the class. The rest of the class will evaluate presentations. Please observe these simple rules when presenting:
1. Do not start your presentation until you have the attention of the whole class.
2. Act as if the instructor were not in the class. Maintain the eye contact with the class not the instructor for important signs and immediate assessment of your presentation.
3. If using the visualizer, do not stand at the visualizer. Instead, go to the screen and point to your notes as displayed on the screen.

Exams. You will complete four 50 min "chapter" tests and one (cumulative) final examination.

Projects and Article reviews. You will submit one current article review and 1 project. An article review is an individual task; projects can be worked out in groups (of 2-5 students; groups do not have to match those in the class). The role of each member must be clearly stated. Topics of projects, rubric for grading projects and reviews will be posted to my website http://cmich.marcinek.sk .

Other rules.

- Academic dishonesty (cheating) is a serious offence with serious consequences. If I see evidence that you are cheating, you will receive a grade of zero on that quiz or exam, and I will contact the Dean of Students and the Director of Teacher Education.
- Late coming, cell phone and other class disruptions will result in decreasing your group grade. To prevent it, make sure you turn OFF your cell phone before entering the classroom. Make sure that you notify me of any unavoidable late arrivals in advance.
- Electronic Devices: In order to protect the intellectual property interests of the instructor, the privacy interests of student members of the class, and to encourage an open and fair exposition of all student views in the classroom without fear that student views expressed will be recorded and possibly posted in another forum, recording of classroom lectures and conversations is not permissible without the express, prior written consent of the instructor. Unauthorized recording of classroom activity shall be considered a violation of the CMU Student Code of Rights, Responsibilities, and Disciplinary Procedures as disruptive of a student's right to learn under 3.2.3 Disruption of Learning.

What you will be graded on

4 chapter tests	10 points each	40 points
Final Exam		25 points
Article review and Project	9 points each	18 points
Group Work		7 points
15 Group Presentations	2/3 pts each	10 points

Attendance: You are allowed <u>three</u> excused absences. Each <u>unexcused</u> absence will lower your grade by five percent points.

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Total possible points   100 points

Please note that there are <u>no extra credit</u> activities, so make sure you start working hard from the beginning of the semester.

Point value of each item is set so that they add up to 100 points. This way it is easy to keep track of your grade:

A: 94 and up	A-: 92-93	B+: 90-91	B: 83-89	B-: 80-82
C+: 77-79	C: 72-76	C-: 69-71	D: 60-68	Failing: below 60