Instructor: Dr. Huy V. Nguyen

Office: MATH 215

Office Hours: Appointments by emails.

E-mail: nguyenhv2@stthom.edu

Class Meeting Time: MTW 2:30-4:30pm in STRAKE 204, Th 1:30-4:30pm in STRAKE 202.


Course Descriptions: Explore the beautiful world of mathematics while improving the fundamental skills that students will need in order to succeed in future classes.

Course Objectives:

- Improve students’ critical reading, analytical thinking, and creative problem solving skills.
- Improve students’ fundamental skills in arithmetic, algebra, geometry, and trigonometry so that they can solve problems more effectively.

Assessment: Your grade will be calculated based on the following percentages:

- Daily Assignments: 20%
- 3 Weekly Challenges (15% each): 45%
- Team Project: 15%
- Ultimate Challenge: 20%

Daily Assignments: Graded out of 10 points. Will be given at the end of class every day, and is due at the beginning of the next class period. Each assignment has 2 portions:

- Mindsharpening: (5 points)
  * 5-10 instructor-created algebra problems of various difficulty.
  * Designed to help students improve their core skills in arithmetic, algebra, etc.
  * You must complete these problems WITHOUT using a calculator – If you go to the gym and ask someone else to do all the weight-lifting, you’re not going to get stronger.

- Mindscaping: (5 points)
  * 5-10 puzzle-like problems called Mindscapes choosen from the textbook. (The textbook doesn’t have exercises because they’re no fun, and mindscapes sound a lot more fun, apparently...)
  * Designed to help students improve their analytical thinking and problem solving skills.
  * You must write/type up complete solutions to every assigned Mindscapes from the textbook.
  * For each of these, all you need is a well-written solution that clearly explains how you got your answer and why you believe that they are correct.
  * Don’t feel too pressured or frustrated if you can’t find the answers right away. Some of these are meant to be challenging. Re-read the problem. Try a different approach. Discuss with another classmate. HAVE FUN with these!
You may use a calculator for these, but AVOID it if you can.

**Weekly Challenges:** Graded out of 100 points. At the beginning of each week, you will be asked to complete an in-class assignment which can be divided into 2 sections:

- **Core Skills:** Straight-forward algebra problems to see how well you have learned and practiced the fundamental concepts from the previous weeks.
- **Problem Solving Skills:** Mindscape-like problems to see how well you can think through to come up with creative answers, and most importantly, to write *clear, concise, and complete* solutions.

**Ultimate Challenge:** Graded out of 100 points. The structure is similar to the Weekly Challenges, only twice as long and more comprehensive. Designed to assess your fundamental skills and your creative problem solving skills.

**Team Project:** Graded out of 100 points. Designed to give students an opportunity to practice working in groups and giving a presentation. The project will be evaluated based on the following:

- **An Individual Report:** (50 points) – a 1-2 page typed description of the topic and solutions to assigned Mindscapes.
- **A Team Presentation:** (50 points) – 15-20 minute presentation of the main ideas of the section and the solutions of the assigned Mindscapes. *#BeCreative*

**Important Dates:**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday</td>
<td>07/09/2015</td>
<td>Assigning teams.</td>
</tr>
<tr>
<td>Monday</td>
<td>07/13/2015</td>
<td>Weekly Challenge 1.</td>
</tr>
<tr>
<td>Thursday</td>
<td>07/16/2015</td>
<td>Choosing topic for Team Project.</td>
</tr>
<tr>
<td>Monday</td>
<td>07/20/2015</td>
<td>Weekly Challenge 2.</td>
</tr>
<tr>
<td>Thursday</td>
<td>07/23/2015</td>
<td>Teams work on project in class.</td>
</tr>
<tr>
<td>Thursday</td>
<td>07/30/2015</td>
<td>Progress Reports due.</td>
</tr>
<tr>
<td>Tuesday</td>
<td>08/04/2015</td>
<td>Individual Reports due.</td>
</tr>
<tr>
<td>Wednesday</td>
<td>08/05/2015</td>
<td>Ultimate Challenge.</td>
</tr>
<tr>
<td>Thursday</td>
<td>08/06/2015</td>
<td>Team Presentations in class.</td>
</tr>
</tbody>
</table>

**Calculator:** Any scientific calculator would suffice. However, you must show enough work. Answers without the proper supporting details will not receive full credit.

**Attendance Policy:** You must attend lectures in order to perform well in any math class. The official attendance policy of UST will be strictly enforced.

**Classroom Conduct Policy:**

- No disruptive behaviors. Mobile devices are allowed as long as they are not distracting or interfering with another student’s learning.
- Be kind and respectful to each other.

**Academic Integrity Policy:** The official Honor Code of UST will be strictly enforced.

**Need help?** Talk to me. Come by my office or email me if you have any question.

**Have a great summer!**