Nature of Mathematics
#BiolaMath
MATH 120 – Spring 2016
Syllabus Summary

Instructor: Mr. Matthew Weathers
Matthew.Weathers@biola.edu

Class web site: **http://math.biola.edu/math120** *(Syllabus and general info)*
Canvas site: **https://canvas.biola.edu** *(Online grades, HW, and quizzes)*

The class web site will have information and instructions, with links to other things you need. I also use your **@biola.edu** email as a way of sending class announcements and reminders.

My contact information:

By e-mail: Matthew.Weathers@biola.edu
By Phone: Cell phone: (562) 322-7427 *(OK to text/call 24hrs, I silence it at night & in class)*
Biola ext. 3277 or (562) 944-0351, ext. 3277 *(My Biola office)*
Math Dept. secretary: Jerrianne Smith, Biola ext. 4741 or (562) 903-4741
Offices: Math Department (Grove Modulars, Unit #8). My office is nearby, Unit #10C.

Lectures: Tues/Thrs: 1:30–2:45 p.m.; 3:00–4:15 p.m.; Business building room 109 (Moats Aud.)

My goals: By the end of the semester, I hope to teach you:
1. An appreciation for the elegance and beauty of mathematics.
2. Some fundamental concepts in various branches of mathematics.
3. To further develop logical thinking and problem-solving skills.
4. To appreciate the historical and conceptual development of mathematics by studying some broad aspects of its history.
5. To gain insight into how mathematics interacts with philosophy and theology, as well as some other disciplines such as art, literature, science, behavioral economics, and astronomy.

Grading Scale

25%	Homework (23 Assignments).
8%	Quizzes/Participation (19 throughout the semester; I drop the lowest 3).
7%	Online Group Discussions (7 throughout the semester; every other week)
10%	Paper on the 80-page novel **Flatland** (700-900 words), due April 12.
	Or: Creative Option – more details on Canvas.
50%	Test 1, Chapters 1-7, February 23. *Best three test scores out of four.*
	Test 2, Chapters 8-13, March 22.
	Test 3, Chapters 14-20, April 28.
	Test 4, Chapters 21-26, May 24 or 26. By Final Exam Week Schedule:

1:30pm section=Tues, 12:30pm; **3:00pm section**=Thrs, 12:30pm;
(See **http://students.biola.edu/finals** for Final Exam Week schedule.)

I will drop your lowest test score. These tests are not cumulative; I will not give you a cumulative final exam. Test 4 will take place during finals week, but will count the same as the other tests. See the schedule on page 3 for due dates of the 23 homework assignments. Homework turned in late but before the next test is 20% off. **No homework accepted after day of test for those chapters**. There is a 10% penalty for each day late for the *Flatland* paper.

Full Syllabus: This is just a summary – see Canvas for an online copy of the official, full syllabus.

Required Texts: (These are both also available online for free)
>*Drawn to Infinity* Coursepack written by Walt Stangl and Dave Carlson. Available in the Biola Bookstore ($20.63), used books okay. Also on Canvas online for free in PDF format.
>*Flatland*, by Edwin A. Abbott, a short novel available [free online](#) (Or $3.30 in the bookstore.)

Calendar of Lectures and Tests: (*Not Homework Due Dates*)

Week	Tuesday	Thursday
1	Feb 2 – Lecture Ch 1	Feb 4 – Lecture Ch 2
2	Feb 9 – Lecture Ch 3	Feb 11 – Lecture Ch 4
3	Feb 16 – Lecture Ch 5	Feb 18 – Lecture Ch 6, 7
4	**Feb 23 – TEST 1 (Ch 1 – 7)**	Feb 25 – Lecture Ch 8
5	Mar 1 – Lecture Ch 9	Mar 3 – Lecture Ch 10
6	Mar 8 – Lecture Ch 11	**Mar 9–11 Missions Conf**
7	Mar 15 – Lecture Ch 12	Mar 17 – Lecture Ch 13
8	**Mar 22 – TEST 2 (Ch 8 – 13)**	Mar 24 – Lecture Ch 14
	Easter Vacation March 25 – April 3, 2016	
9	Apr 5 – Lecture Ch 16	Apr 7 – Lecture Ch 15
10	Apr 12 – Ch 17 – **Paper Due**	Apr 14 – Lecture Ch 18
11	Apr 19 – Lecture Ch 19	Apr 21 – Lecture Ch 20
12	Apr 26 – Ch 20, Review	**Apr 28 – TEST 3 (Ch 14–20)**
13	May 3 – Lecture Ch 22	May 5 – Lecture Ch 23
14	May 10 – Lecture Ch 24	May 12 – Lecture Ch 25
15	May 17 – Lecture Ch 26	May 19 – Lecture Ch 21
Finals	**May 24 or 26** – **Test 4 (Ch 21-26)**, according to finals schedule: **1:30pm class**=Tues, 12:30pm; **3:00pm class**=Thrs, 12:30pm	

Final exam schedule: **http://students.biola.edu/finals** or see your schedule on my.Biola

> **Homework:** Write your name and chapter number legibly. Staple pages together, or write your name on each sheet. Do not staple multiple chapters together. **Show your work** when you can. Some answers are in the book for your reference, but you will not get credit for just copying the answers. Draw a box around each answer. Left edge of paper should be straight (no ragged edges from notebook).
> Some homework will be turned in electronically, on Canvas.
> **During Tests:** You may use a calculator, but not a cell phone calculator. No music. Tests are a mix of multiple-choice, fill in the blank and short problems. They last 75 minutes, and have about 45 questions. See Appendix 4 in the coursepack textbook for sample questions. Make-up tests are online.

> **Biola's Official Academic Honesty Policy**: We are committed at Biola University to ethical practice in teaching, scholarship, and service. As such, plagiarism and other forms of academic dishonesty will not be tolerated. Please see the undergraduate/graduate student handbook and/or the departmental / program / school policy on academic honesty. It is imperative that you present all written, oral, and/or performed work with a clear indication of the source of that work. If it is completely your own, you are encouraged to present it as such, taking pleasure in ownership of your own created work. However, it is also imperative that you give full credit to any and all others whose work you have included in your presentation via paraphrase, direct quotation, and/or performance, citing the name(s) or the author(s) / creator(s) and the source of the work with appropriate bibliographic information. To do otherwise is to put oneself in jeopardy of being sanctioned for an act or acts of plagiarism that can carry serious consequences up to and including expulsion from the university.

Homework Due Dates & Point Values

You can use this schedule to help yourself keep track of when homework is due, when you turned it in, and your scores. I recommend putting these dates, the test dates, and paper due date on your calendar.

	Chapter	Due Date	Points
	1	Feb 04 Online	15
	2	Feb 09	14
	3	Feb 11 Online	9
Section 1	4	Feb 16	11
	5	Feb 18	10
	6	Feb 23	9
	7		7
	8	Mar 01	12
	9	Mar 03 Online	15
Section 2	10	Mar 08	16
	11	Mar 15	14
	12	Mar 17 Online	6
	13	Mar 22	12
	14	Apr 05 Online	15
	16	Paper Due April 12	
	15	Apr 12 Online	11
Section 3	17	Apr 14 Online	16
	18	Apr 19 Online	12
	19	No Homework	
	20	Apr 28	21
	21	No Homework	
	22	May 05 Online	14
Section 4	23	May 10 Online	12
	24	May 12 Online	13
	25	May 17	21
	26	May 19 Online	15

Green: Submit answers online on Canvas

Yellow: Turn in paper copy in class.

Last Day to turn in any late homework, Ch 1-7 is Feb 23

Last Day to turn in any late homework, Ch 8-13 is Mar 22

Last Day to turn in any late homework, Ch 14-20 is Apr 28

Last Day to turn in any late homework, Ch 21-26 is May 19

If you turn in a homework assignment late, there is a 20% penalty. You cannot turn in a homework assignment after the day of the test for that section. However, I will not take 20% off for the first two assignments you turn in late during the semester, just as long as it is still before you take the test.

About half of the homework assignments are listed as "Online" assignments. Do the homework on paper, as usual, but don't turn in the paper. Instead, type in your answers on Canvas. You will be able to see your grade immediately (and re-do for more points). For non-online homework, turn in your homework on paper, and we will grade it and within a week or two, you will see your score on Canvas.

There are about 19 **Quizzes** but I will drop your 3 lowest scores. This is how I track attendance. (You must attend the entire 75-min class period to get credit). Most quizzes will be via cell phone text messages, so you may want to store this number in your cell phone: **Math 120 Quiz # (949) 390-9936** (I will have a paper option if do not have a phone or you cannot text.)

Students desiring accommodations on the basis of physical, learning, or psychological disability are to contact the Learning Center (x4542) located in room U137, on the upper level of the library.

The **Flatland Paper** is worth 10% of the grade. See Canvas for full assignment prompt.

> This paper should be **between 700 and 900** words long, and is due **April 12, 2016** preferably by the time of class but sent by 11:59 p.m. is not considered late. You can buy a copy of *Flatland* at the Biola Bookstore for $3.30 (price includes tax), or you can read it online for free at: **http://www.geom.uiuc.edu/~banchoff/Flatland**
>
> **To Turn In:** Turn this in through the Canvas system. If you use Microsoft Word, you can upload the Word document as-is. If you use any other word processor, do **Save As** and choose **Word format** or **PDF format**, and upload that version. I don't want a paper copy.

Online Group Discussions: Since we have a large class, it's hard for everyone to get a chance to contribute to the discussion, so we will do discussion online, on Canvas. You are in a group with 6 or 7 others. Answer the discussion prompt with a paragraph or two (about 200 words). The purpose of these discussions is to help you learn from each other and to give you a chance to think through some of the issues discussed in the lectures. Your initial post is due by 11:59 p.m. Wednesday. (**February 10, February 24, March 16, April 6, April 20, May 4, and May 18**) You are then required to respond to at least two posts from others by 11:59 p.m. Saturday, **two days later**. These responses don't have to be long - maybe a sentence or two. However, they should be more substantial than "I agree!" or "Good post." Your responses should contribute to the discussion. Feel free to bring up other topics, or links to relevant content - whatever you think contributes to the discussion. These are worth 7% of your grade.

Final Semester Letter Grade
Your final letter grade will be determined by a weighted percentage, which you can check on Canvas. This chart shows your final semester letter grade based on the percent you earn:

To get this grade	You need this percent
A	93%
A-	90%
B+	87%
B	83%
B-	80%
C+	77%
C	73%
C-	70%
D+	67%
D	63%
D-	60%
F	59.9%

Extended Absences: The student handbook says that "students who miss more than 20% of regular class sessions (even if absences are considered 'excusable') may be required to drop the course." If you miss **more than four weeks' worth of classes** (8 quizzes), you will earn a failing grade of "**UW**" – Unofficial Withdrawal. Learning to consistently show up to class is important.

Homework extensions. I cannot grant any kind of homework extension beyond the day of the final exam, May 26, 2016. According to the faculty handbook, "All assignments must be in by the time of the final examination unless the Office of the Dean of Student Development or the dean of the instructional school has in advance granted an extension of time for some valid reason." (Ask about "Report Delay.")