





Nature of Mathematics
#BiolaMath  
MATH 120 – Spring 2015
Syllabus Summary



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

Class web site: <http://math.biola.edu/math120> (*Syllabus and general info*)

Canvas site: <http://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: Jerriane Smith, Biola ext. 4741 or (562) 903-4741

Offices: White 48A, Math Department (in McNally). My office is in White 49.

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

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*).

12% Paper on the 80-page novel *Flatland* (700-900 words), due March 31.
Or: Creative Option – more details on Canvas.

55% Test 1, Chapters 1-7, February 17. *Best three test scores out of four.*

Test 2, Chapters 8-13, March 17.

Test 3, Chapters 14-20, April 23.

Test 4, Chapters 21-26, May 19 or 21. By Final Exam Week Schedule:

1:30pm section=Tues, 12:30pm; **3:00pm section**=Thrs, 12:30pm;

(See biola.edu/registrar/academic_schedules/finals 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	Jan 27 – Lecture Ch 1	Jan 29 – Lecture Ch 2
2	Feb 3 – Lecture Ch 3	Feb 5 – Lecture Ch 4
3	Feb 10 – Lecture Ch 5	Feb 12 – Lecture Ch 6, 7
4	Feb 17 – TEST 1 (Ch 1 – 7)	Feb 19 – Lecture Ch 8
5	Feb 24 – Lecture Ch 9	Feb 26 – Lecture Ch 10
6	Mar 3 – Lecture Ch 11	Mar 5 – Lecture Ch 12
7	Mar 10 – Lecture Ch 13	Mar 11-13 Missions Conf
8	Mar 17 – TEST 2 (Ch 8 – 13)	Mar 19 – Lecture Ch 14
9	Mar 24 – Lecture Ch 16	Mar 26 – Lecture Ch 15
10	Mar 31 – Ch 17 – Paper Due	Apr 2 – Lecture Ch 18
Easter Vacation April 3 – April 12, 2015		
11	Apr 14 – Lecture Ch 19	Apr 16 – Lecture Ch 20
12	Apr 21 – Ch 20, Review	Apr 23 – TEST 3 (Ch 14–20)
13	Apr 28 – Lecture Ch 22	Apr 30 – Lecture Ch 23
14	May 5 – Lecture Ch 24	May 7 – Lecture Ch 25
15	May 12 – Lecture Ch 26	May 14 – Lecture Ch 21
Finals	May 19 or 21 – Test 4 (Ch 21-26), according to finals schedule: 1:30pm class=Tues, 12:30pm; 3:00pm class=Thrs, 12:30pm	

Final exam schedule: biola.edu/registrar/academic_schedules/finals

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).

However, most 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	
Section 1	1	Jan 29 Online	15	Green: Submit answers online on Canvas
	2	Feb 03	14	
	3	Feb 05 Online	9	Yellow: Turn in paper copy in class.
	4	Feb 10	11	
	5	Feb 12	10	
	6	Feb 17	9	
	7		7	
Section 2	8	Feb 24	12	Last Day to turn in any late homework, Ch 1-7 is Feb 17
	9	Feb 26 Online	15	
	10	Mar 03	16	Last Day to turn in any late homework, Ch 8-13 is Mar 17
	11	Mar 05	14	
	12	Mar 10 Online	6	
	13	Mar 17	12	
Section 3	14	Mar 24 Online	15	Last Day to turn in any late homework, Ch 14-20 is Apr 23
	16	Paper Due March 31		
	15	Mar 31 Online	11	
	17	Apr 02 Online	16	
	18	Apr 14 Online	12	
	19	No Homework		
	20	Apr 23	21	
Section 4	21	No Homework		Last Day to turn in any late homework, Ch 21-26 is May 14
	22	Apr 30 Online	14	
	23	May 05 Online	12	
	24	May 07 Online	13	
	25	May 12	21	
	26	May 14 Online	15	

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 whole 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 12% of the grade. Here is the assignment:

This paper is to be your personal reflections about the book *Flatland*. Do not just retell the story, unless there is a small portion of the story you need to refer to in order to make your point. Read the whole book, but I do not expect you to write about the whole book. Pick one or maybe two ideas, and focus your reflections on that. Since these are to be your personal reflections, I would expect, even encourage you to look at the book from your own unique perspective. This could mean your cultural background, your life experiences, your political views, etc. Do not just tell me what you think I want you to say – tell me your ideas and explain them. This book is a bit slow at the beginning, and you may even find yourself wondering why you are reading it. Two words of advice: first, if you have concerns or questions, raise them and we can talk about them as a class; and second, persevere – the second half of the book is more interesting for most people than the first half. This paper should be **between 700 and 900** words long, and is due **March 31, 2015** 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.

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 21, 2015. 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.”)