
Place: MS 6229; Lectures: MWF 12:00-12:50; Discussion section: Tuesday 12:00-12:50
 Course website: [HTTP://WWW.MATH.UCLA.EDU/~PANOVA/180.1.11F/INDEX.HTML](http://www.math.ucla.edu/~panova/180.1.11f/index.html)

Instructor: Greta Panova, office: MS 6901, e-mail: [PANOVA@MATH.UCLA.EDU](mailto:panova@math.ucla.edu).
 Office hours: Monday 2:30-4:30, Thursday 11:30-12:30 (tentative, check website before you come)

Teaching assistant: Humberto Naves, office: MS 3919, e-mail: [HNAVES@MATH.UCLA.EDU](mailto:hnaves@math.ucla.edu).
 Office hours: Tuesday 3-4pm (tentative, check website)

Textbook: *Applied combinatorics*, Alan tucker, 5th edition.

Exams: There will be one midterm on Wednesday October 26 during regular class hours. The final exam is scheduled for Tuesday, December 6, 11:30 am — 2:30pm.

Grading policy: Your grade will computed as 15% Homework + 25% Midterm + 60% Final.

Homeworks: There will be weekly homeworks due **Wednesdays at 12:00** in class, starting first week of October. Each homework will be announced online¹ the week before it is due. The homework with lowest score will not be counted towards your grade. Late homeworks will not be accepted.

Schedule of topics

Date	Lecture	Book sections	Topic
Sept 23	1	5.1	Basic counting principles
Sept 26	2	5.2	Arrangements vs Selections
Sept 28	3	5.3	Arrangements and Selections with repetitions
Sept 30	4	5.4	Distributions
Oct 3	5	5.5	Binomial identities
Oct 5	6	6.1	Generating functions
Oct 7	7	6.2	Coefficients of generating functions
Oct 10	8	6.3	Partitions
Oct 12	9	6.4	Exponential generating functions
Oct 14	10	7.1	Recurrence relations
Oct 17	11	7.3	Solutions of linear recurrence relations
Oct 19	12	7.4	Inhomogeneous recurrences
Oct 21	13	7.5	Solving recurrences with generating functions
Oct 24	14	5,6,7	Midterm review
Oct 26	15	5,6,7	Midterm , in class
Oct 28	16	8.1	Venn diagrams
Oct 31	17	8.2	Inclusion-exclusion principle
Nov 2	18	1.1	Graphs
Nov 4	19	1.2	Graph isomorphism
Nov 7	20	1.3	Edge counting
Nov 9	21	1.4	Planar graphs
Nov 11	No class		<i>Veterans Day</i>
Nov 14	22	2.1, 2.2	Euler Cycles
Nov 16	23	2.2, 2.3	Hamilton Circuits
Nov 18	24	2.3, 2.4	Graph coloring
Nov 21	25	2.4	Planar graphs
Nov 23	26	4.1	Network algorithms: shortest path
Nov 25	No class		<i>Turkey digestion</i>
Nov 28	27	4.3	Network flows
Nov 30	28	4.4	Hall's marriage theorem
Dec 2	29		TBD

¹Homeworks will be posted at [HTTP://WWW.MATH.UCLA.EDU/~PANOVA/180.1.11F/ASSIGN.HTML](http://www.math.ucla.edu/~panova/180.1.11f/assign.html).