

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

Mathematics for Computer Science  
6.042J/18.062J Spring 2017

WELCOME!....  
Prof. Albert R Meyer



Albert R. Meyer, 2016

February 8, 2017

welcome.1

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

Mathematics for Computer Science  
6.042J/18.062J Spring 2017

WELCOME!....  
Prof. Albert R Meyer



Albert R. Meyer, 2016

February 8, 2017

welcome.2

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## 6.042 Quick Summary

1. Fundamental Concepts of Discrete Mathematics (*sets, relations, proof methods,...*)
2. Discrete Mathematical Structures (*numbers, graphs, trees, counting...*)
3. Discrete Probability Theory



Albert R. Meyer, 2016

February 8, 2017

welcome.4

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Strong Math Experience?

If you have

- been on a school team
- done Math competitions (like Olympiad, Putnam, MAA)
- taken more of 6.042, 6.0100, 18.06, 18.200, or more advanced subject

*6.042 may not be for you!*



Albert R. Meyer, 2016

February 8, 2017

welcome.6

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Strong Math Experience?

Discuss **6.042 alternatives**  
with the Instructor

[6042-instructors@mit.edu](mailto:6042-instructors@mit.edu)



Albert R. Meyer, 2016

February 8, 2017

welcome.8

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Vocabulary

Quickie:

What does "discrete" mean?  
( $\neq$  "discreet")



Albert R. Meyer, 2016

February 8, 2017

welcome.9

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Stellar Web site

- notes, handouts
- class calendar
- course organization
- problem submission

<https://stellar.mit.edu/S/course/6/sp17/6.042/>



Albert R. Meyer, 2016

February 8, 2017

welcome.10

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Reading Assignment

Readings & online problems  
in class **calendar on Stellar**  
**due starting Friday**



Albert R. Meyer, 2016

February 8, 2017

welcome.11

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

MITx site: **6.042r**

Register for session assignment by **Friday midnight** (find link on Stellar) site has **videos, slides, online questions**



Albert R. Meyer, 2016

February 8, 2017

welcome.12

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

How the Class Works  
**Active learning in Teams**

MWF 1.5 hour sessions:

- Teams of same 6–8 students with Team Coach.
- Team learning through problems & discussion



Albert R. Meyer, 2016

February 8, 2017

welcome.15

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

How the Class Works

- **required attendance**
- **videos, online problems** most days
- **four 90 min. evening midterms**
- **psets: weekly (not midterm weeks)**



Albert R. Meyer, 2016

February 8, 2017

welcome.16

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

Teamwork

The **good** about teams:

- an efficient way to learn
- fun (for many students)
- like professional organizations
- learn to communicate
- cope with diversity

**...USUALLY**



Albert R. Meyer, 2016

February 8, 2017

welcome.18

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Teamwork

The **bad** about teams:

- must be there **prepared!**
- unremitting
- and sometimes:
  - very strong are slowed down
  - very weak left behind
  - deal with unpleasant people



Albert R. Meyer, 2016

February 8, 2017

welcome.19

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Teamwork

Your **team coach** will be working to bring out the **good** and control the **bad**  
 --TAs & instructor too



Albert R. Meyer, 2016

February 8, 2017

welcome.20

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Teamwork

Team approach is **controversial**

$\frac{1}{4}$  love it  
 $\frac{1}{4}$  hate it  
 $\frac{1}{2}$  neutral



Albert R. Meyer, 2016

February 8, 2017

welcome.21

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Teamwork

In **F18**, 6.042 will be taught in usual **lecture/recitation style.**



Albert R. Meyer, 2016

February 8, 2017

welcome.22

6	9	13	7
12		10	5
3	1	4	14
15	8	11	2

## Register on MITx

Register for team  
assignment by  
Friday midnight  
MITx link on Stellar



Albert R. Meyer, 2016

February 8, 2017

welcome.23