

UNSW MOOC

Introduction to Systems Engineering

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Scope

- The course ran over nine weeks in nine modules containing:
 - Presentations
 - Quizzes
 - Exercises
 - Optional (Signature Track)
 - Tests
 - Extensions exercises

Course Outline

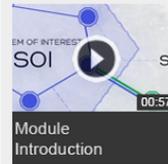
- Module 1: Systems and System Life Cycle
- Module 2: SE Relevance and Benefits
- Module 3: Needs and Requirements
- Module 4: Requirements Elicitation and Elaboration
- Module 5: Conceptual Design
- Module 6: Preliminary and Detailed Design
- Module 7: Production, Utilisation and Disposal
- Module 8: Systems Engineering Management
- Module 9: Summary and Course Conclusion

Format

Systems and System Life Cycle

 Announcements |  Discussions |  Social News |  Roadmap

Module Introduction



You can view our module introduction video by clicking on the image to the left of this text. This video will provide you with an introduction to the module, before you start the video lectures.

If you need detailed information about the course, try the [Course Details](#) and [FAQs](#) page. If you need a concise overview of the course, you can use the [Course Roadmap](#) to guide you through the course.

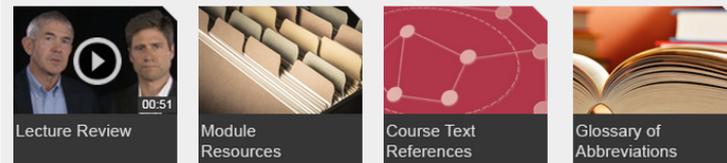
Video Lectures

You can also [download](#) the videos for offline viewing, or read the video [transcripts](#). And we are in the process of converting the video lectures to pdf slides (due to demand). You will find the list of converted lectures [here](#).



Lecture Review and Additional Resources

We hope you enjoyed the module video lectures. Click on the video below to watch our quick review of the lectures. You will also find the full list of resources in the Module Resources for quick access. And if you have the course textbook, we have provided you with the relevant pages to refer to.



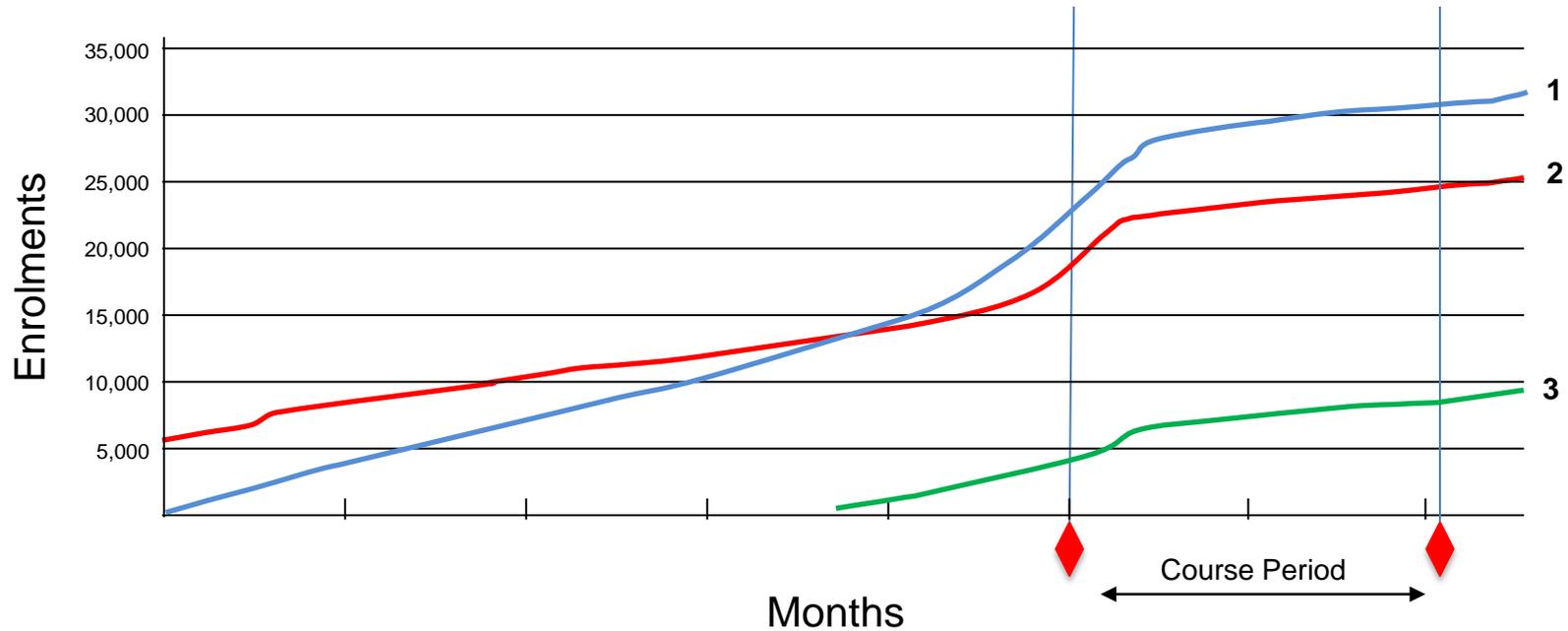
Quiz and Exercises

You can have multiple attempts at the quiz, but you do have to score at least 50% to obtain the Statement of Accomplishment. The quiz can be undertaken at any time, but you must complete all module quizzes by 11:00pm, Monday 23rd June 2014, AEST Sydney (UTC +10 hours). [Click here to convert to your time zone](#).

Enrolments

	Offering 1	Offering 2	Offering 3
Total registrations	32,705	25,677	8,235
Total course visitors	19,179	14,325	5,801
Signature track	329	323	171

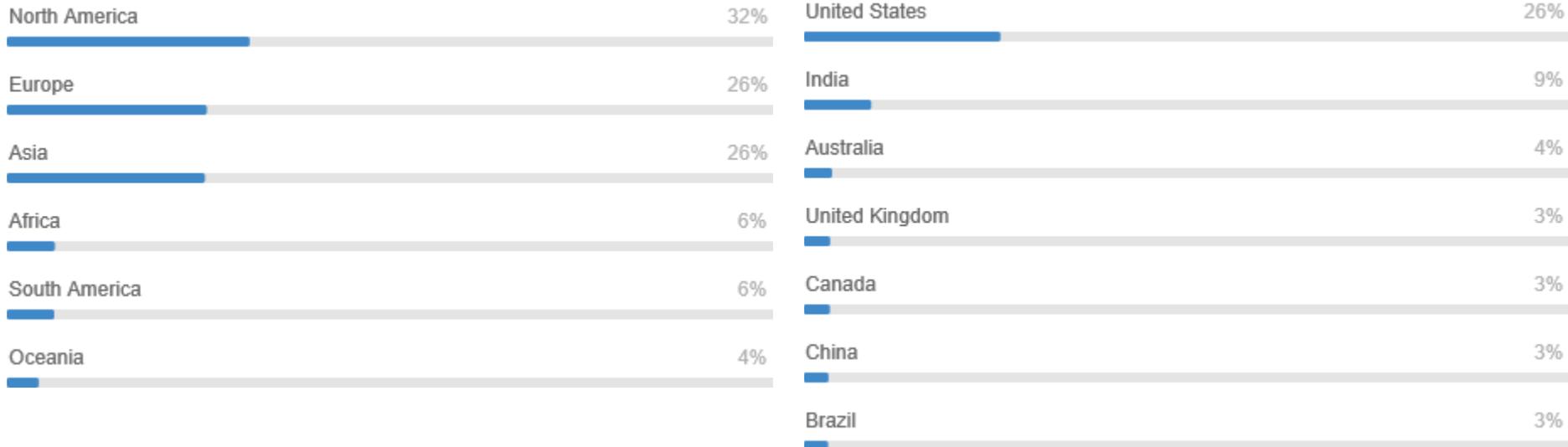
Enrolments



Average enrolment in MOOCS is about 43,000 students.

Source: <http://techcrunch.com/2014/03/03/study-massive-online-courses-enroll-an-average-of-43000-students-10-completion/>

Demographics (similar for all three offerings)



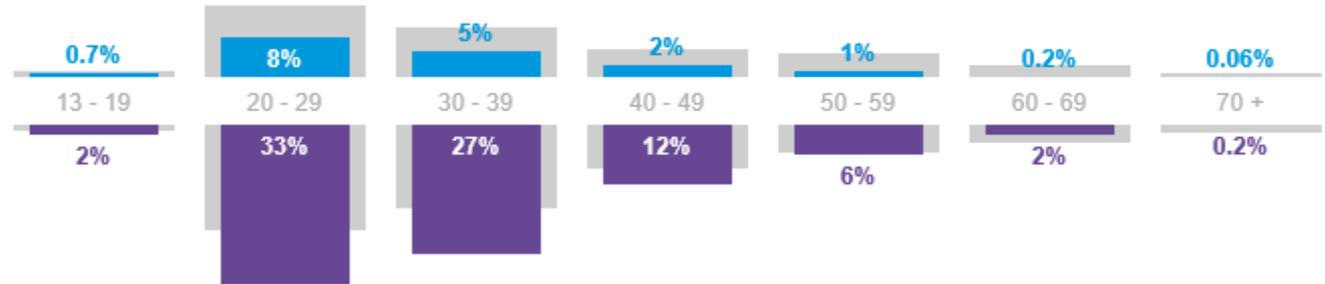
Offering	1	2	3
Countries	173	180	160

Demographics (similar for all three offerings)

Female

■ 18%
Your Session

■ 40%
Coursera

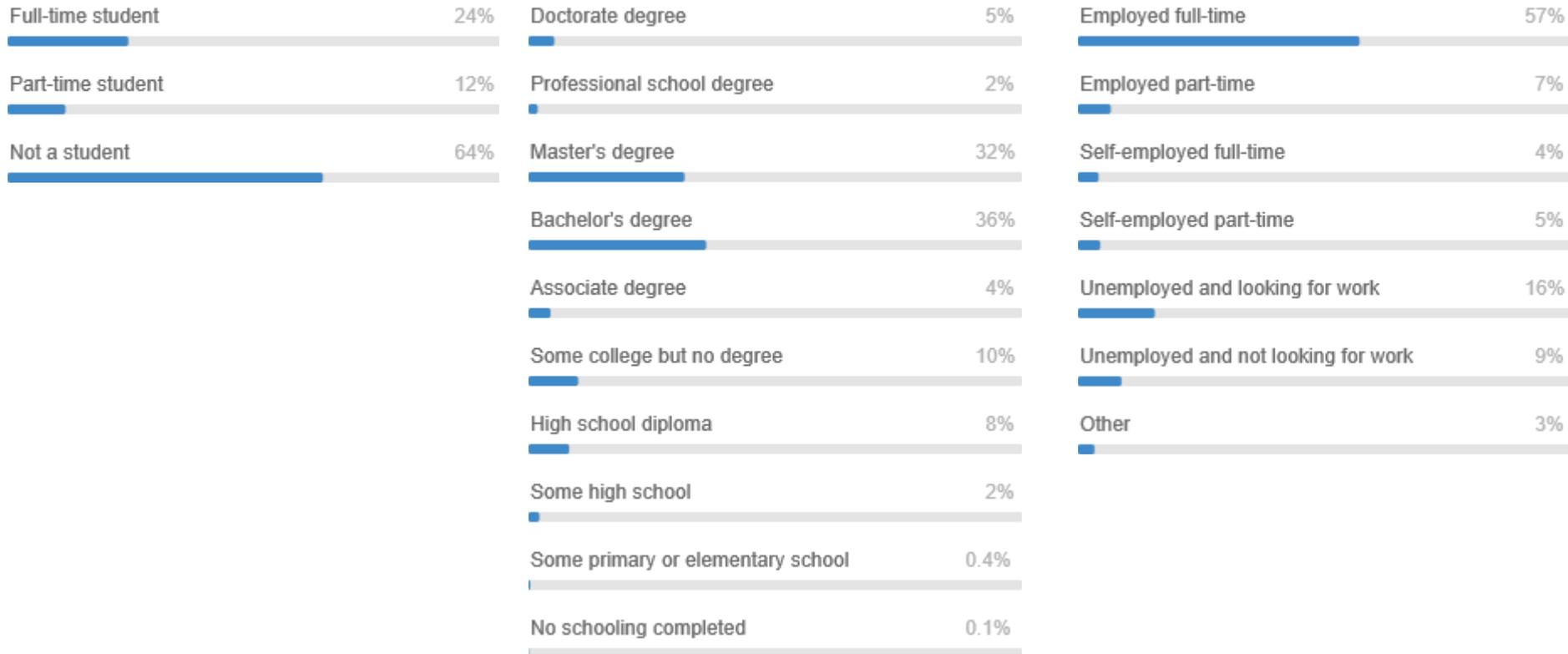


Male

■ 82%
Your Session

■ 60%
Coursera

Demographics (similar for all three offerings)

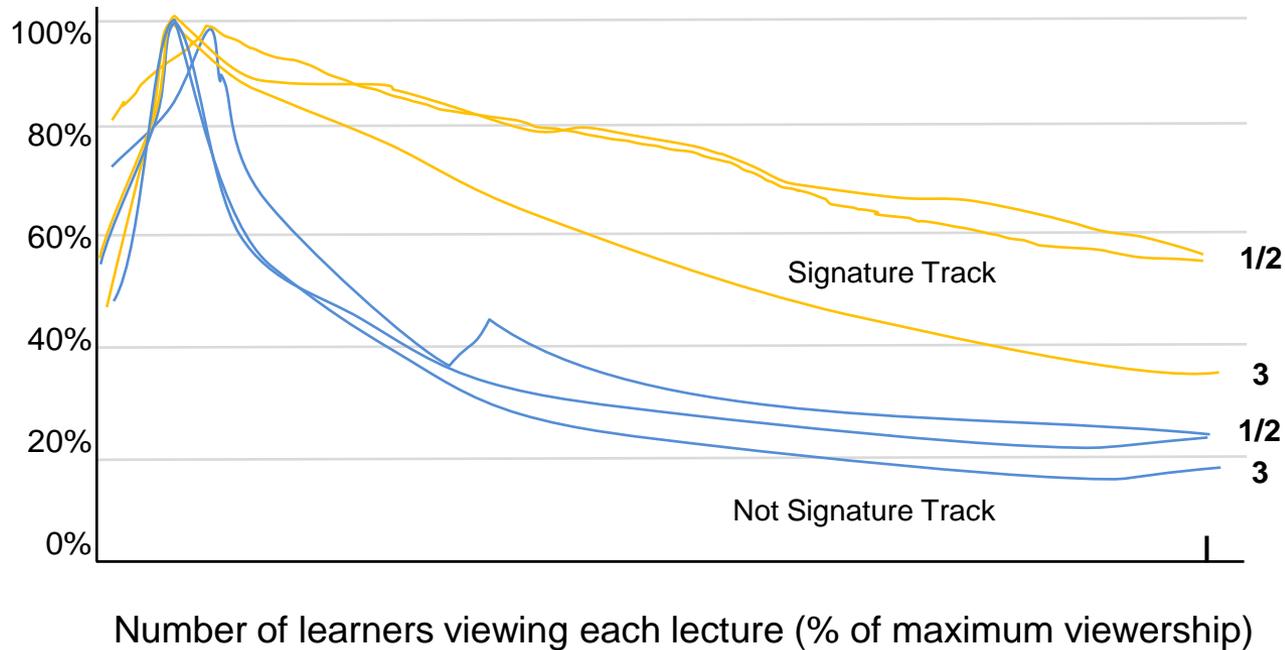


Based on ~3,000 responses each course

Industry

Natural and Physical Sciences	2%
IT	27%
Engineering and Related Technologies	32%
Architecture and Building	2%
Agriculture and Environmental Sciences	1%
Health	2%
Education	6%
Management and Commerce	7%
Society and Culture	1%
Creative Arts	1%
Food, Hospitality and Personal Services	1%
Other / None	18%

Engagement

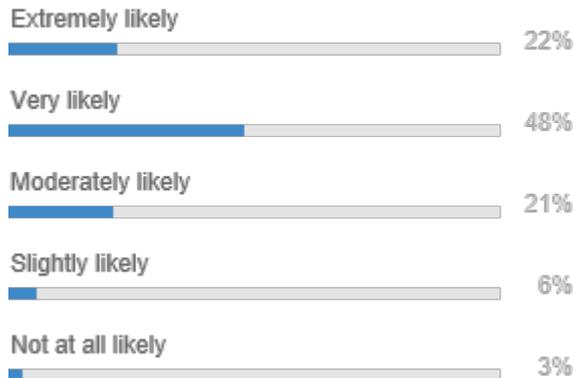


Average completion of MOOCS is less than 7% with the percentage rising to 10% for those that are 'committed' to the course.

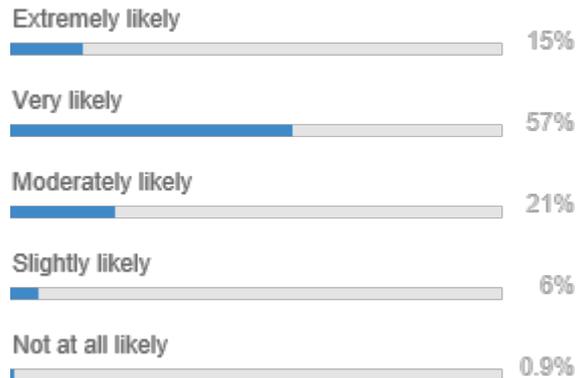
Source: "Not staying the course", <https://www.insidehighered.com/news/2013/05/10/new-study-low-mooc-completion-rates>

Satisfaction

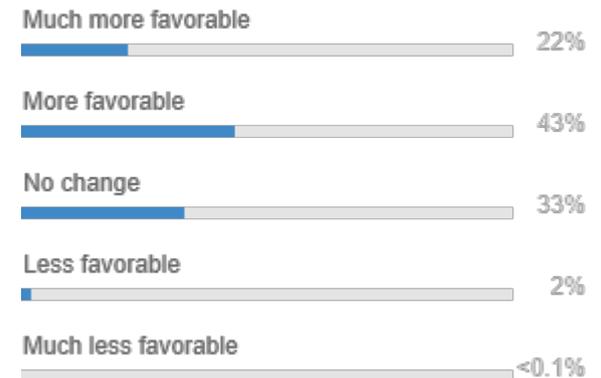
After taking this course, how likely are you to take another online course from the same instructor(s)?



After taking this course, how likely are you to take another online course from the same university/institution?



How has this course changed your perception of the university/institution offering it?



Based on question responses from on average 59 learners. Estimates accurate to \pm 13 percentage points.

Satisfaction

#	Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
1	I find this lecture useful	0.50	5.00	4.24	0.86	15,457
2	I understand the content of this lecture	0.50	5.00	4.33	0.80	15,349
3	I would like to explore other modules of this course	0.50	5.00	4.52	0.74	15,063

Some comments—Large courses

- Interesting experience to extend from 200 online students to 10,000:
 - The majority of students are still lurkers— participation in online forums is not for all (about 5% active)
 - Once past 50 students must have no errors—with 10,000 there is no time to scramble to recover so courses can very quickly collapse if there are any errors in notes, videos, or lectures.

Some comments—omnigogy

- Traditional views of pedagogy and andragogy do not apply to MOOCs in the same way as online University courses:
 - Students do not have to follow formal process
 - They can leave any time they like
 - Wide variety of backgrounds, interests, learning styles—guided by “omnigogy” rather than pedagogy or andragogy
 - No ability to rely on common knowledge base

Some comments—the medium

- Video is a very slow way to communicate:
 - Can read text four times faster than can view video
 - Can't scan video; can flip through text
 - Video still not easy to take mobile
 - Video best used to illustrate sequences
- Our experience with online technical courses was validated when we started MOOC1 without text but had to scramble to provide notes—MOOC2 and MOOC3 had a much smoother start as a result

Some comments—experience

- MOOCs are not for novices
 - Must have a well formed body of knowledge
 - Must have a solid experience in delivery of online distance courses
 - Must have error-free artefacts

Some comments—Coursera

- Seems useful to students for large numbers
- Not at all useful for presenters:
 - Set up for one-to-many; need many-to-many support
 - Fora set up for students to use—no useful view for presenters except to trawl through each forum or subscribe to all—the app now does not support the forums
 - Quizzes very difficult to set up, particularly import
 - Now focused on business case

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