

MOOCs1 (Massive Open Online Course 1) Report of 2018 by Professor Haruyuki Atomi (Self-paced)

Course Name: The Extremes of Life: Microbes and Their Diversity

Course Start Date: Dec. 6, 2018 9:00 UTC

Course End Date: Sep. 26, 2019 23:30 UTC

Total Enrollment: 1603

Completed Enrollment: 71

Verified Enrollment: 38 (fee'd)

Verified Completed Enrollment: 36

Enrollment from 108 Countries/Regions in Total

---Top10 Countries---

| | |
|-----------|-----|
| USA | 299 |
| India | 157 |
| UK | 67 |
| Italy | 59 |
| Canada | 56 |
| Indonesia | 53 |
| Australia | 33 |
| Brazil | 33 |
| Mexico | 32 |
| Germany | 31 |

Age Group

< 25 41.0 %

25-40 42.9 %

41 < 16.1 %

Syllabus

Week 1: Evolution and the Diversity of Life

Evolution is a result of diversification and selection

How can we classify life?

Phylogenetic analysis

The three domains of life

Week 2: Life in Boiling Water

Extreme environments

Hyperthermophiles

More hyperthermophiles

Thermostable proteins from hyperthermophiles

Week 3: Diversity of Extremophiles

Preparing for a hot reaction

Watching a hot reaction

Extremophiles

More extremophiles

Week 4: Genome Sequences

What they tell us

How can we use them?

Using the genome to find new metabolic pathways | Part 1

Using the genome to find new metabolic pathways | Part 2

Diversity of the microbial world