

# Healthcare Operations Research Summer School in Twente

July 21 – 25, 2017

## University of Twente, Enschede, the Netherlands

We are excited to announce a special summer school on Healthcare Operations Research this summer at the University of Twente, the Netherlands! The event targets PhD students working on OR applications focused on improving healthcare. Participants will learn state-of-the-art OR techniques taught by renowned international professors, learn about how to successfully engage with the healthcare practice, and meet other PhD students from around the world. The program includes a wide variety of components including technical lectures, tutorials, inspiring seminars, interactive activities and a design competition of a serious game that demonstrates a healthcare OR/OM concept to healthcare professionals. The total workload of the summer school is 2 European Credits (2 ECs = 56 hours), consisting of preparation and contact hours.

### Where and when?

The event will take place on University of Twente's campus in *Enschede, the Netherlands*, from *July 21<sup>st</sup> to July 25<sup>th</sup> 2017*, right after the IFORS conference in Quebec City, Canada (July 17 – 21) and before the [INFORMS Healthcare 2017](#) meeting in Rotterdam, the Netherlands (July 26 – 28) and the [ORAHS meeting in Bath, UK](#) (July 31 – August 4). The INFORMS Rotterdam conference can be easily reached by train from Enschede, immediately following the summer school.

### Contributing professors

- [Dr. Sally Brailsford](#) (University of Southampton) – Chair, [EURO-ORAHS working group](#)
- [Dr. Timothy Chan](#) (University of Toronto) – Director, [Centre for Healthcare Engineering](#)
- [Dr. Brian Denton](#) (University of Michigan) – President, [INFORMS](#)
- [Dr. Eva Lee](#) (Georgia Institute of Technology) – Director, [Center for Operations Research in Medicine and Healthcare](#)
- [Dr. Richard Boucherie](#) ([CHOIR](#), [University of Twente](#)) – *Organizer*
- [Dr. Derya Demirtas](#) ([CHOIR](#), [University of Twente](#)) – *Organizer*
- [Dr. Erwin Hans](#) ([CHOIR](#), [University of Twente](#)) – *Organizer*

### Topics (not necessarily in this sequence)

Title	Description	Total time
You're wanted!	We look back at the history of OR in Healthcare, and give an overview of what has and has not been accomplished so far. Also, we outline the great challenges that current and near future healthcare faces.	0.5 day
Update your toolbox	We lecture various techniques from Operations Research that are indispensable for the healthcare domain. These	2 days

	<p>include amongst others (<i>topics under reservation</i>):</p> <p>Advanced topics in queueing theory</p> <p>Markov decision processes</p> <p>Inverse optimization</p> <p>Hybrid simulation</p> <p>Machine learning and mathematical programming</p> <p>Serious gaming</p>	
Making an impact?!	We discuss how to engage practice, how to organize your research to maximize impact. We also address the tension between consultancy and research, "easy solutions" and "fancy (but too complex for practice) OR". The professors will give inspiring talks about their experiences of trying to make an impact.	0.5 day
Game on!	Participants team up and design a prototype serious game that demonstrates a healthcare OR/OM concept to healthcare professionals. The result is presented on the final day.	1 day

Surrounding the teaching events we'll organize various social activities.

### Who can apply?

- PhD students working on a OR/OM in Healthcare project.
- Participants are assumed to have a MSc level background in (deterministic and stochastic) operations research.
- Post-docs have a lower priority than PhD students. They may apply, but are only accepted if there are places left.

### When and how to apply?

*You must apply before March 31<sup>st</sup>.* Admission will be on a competitive basis. Approximately 30 participants will be admitted: in addition to overall quality of CV, factors such as personal motivation, progress towards the PhD degree and institutional/geographical representation will be taken into account.

- Send your Curriculum Vitae including information about education, research projects, publications, awards and other pertinent experiences (pdf format) by email to: [summerschool-choir@utwente.nl](mailto:summerschool-choir@utwente.nl)
- A max. 1 page motivation statement outlining your perspective and motivation to participate

## **Participation fee, accommodation, traveling, and catering**

We are in the process of securing funding in order to keep the participation fee at an absolute minimum. In any case we will charge no more than €100 per participant, but we are striving for a €0 fee. We expect to know the precise fee in May.

Catering and accommodation are included in the participation fee. Traveling costs will be paid by the participant. Accommodation is on-campus in shared cabins. The cabins are cozy and are nicely located between sports facilities, and a short walking distance to the summer school and various amenities. A very nice place to be in summer time – very fitting for a summer school. They are shared (gender separated) by at most 10 people. If you prefer to have a hotel room for yourself, you can stay at your own expense at the on-campus Hotel Drienerburgh, where rooms are approx. €70 per night.

For updates see the website: <https://www.utwente.nl/en/choir/SummerSchool/>

Looking forward to seeing you in Twente!

Richard Boucherie  
Derya Demirtas  
Erwin Hans