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# Innovations in Mathematics Curriculum

A workshop for teachers and students SE, 1 SST, 2 ECTS

> Prof. Dr. Peter Sullivan Monash University, Australia

# December, 3<sup>rd</sup>: 15:00 – 19:00 December, 4<sup>th</sup>: 8:00 – 17:00

### **ALPEN-ADRIA-UNIVERSITÄT KLAGENFURT**

IFF, Sterneckstraße 15, 9010 Klagenfurt

room: S.2.07

### Innovations in Mathematics Curriculum

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#### Content

Australia is currently developing a national curriculum for the first time. The process has raised a number of the key issues in mathematics education such as what knowledge do teacher need to teach mathematics well, how should the curriculum be described to build that teacher knowledge, how can students who experience difficulty in learning mathematics be supported, and how can the best students be extended. The workshop will examine these issues from both an Australian and an Austrian context, and will consider the challenges in writing a curriculum that reflects mathematical as well as pedagogical principles.

#### Objectives

The objectives of the workshop are that the participants will:

- discuss the key goals for teaching mathematics to school students;
- · consider national goals for workforce and life development;
- examine the issues associated with teaching students who experience difficulty in learning mathematics;
- explore ways to ensure that the best students are extended in mathematics, and are adequately prepared for University studies;
- model the process of writing a mathematics curriculum;
- reflect on the challenges on curriculum development at the class, school, and national levels.

### **Methods/Didactics:**

The workshop will include active experiences with a range of mathematical tasks, discussion in groups on the ways that those tasks can support student learning, and consideration of the types of methods used in this project and the challenges in reporting on such research.

Die Seminarsprache ist Englisch.

Prof. Dr. Peter Sullivan has been teacher for ten years. Currently he is Professor of Science, Mathematics and Technology Education at Monash University (Australia). He is Editor-in-Chief of the Journal of Mathematics Teacher Education and the author of the first national curriculum-frameworks for mathematics in Australia.

Please register for the seminar under http://ius.uni-klu.ac.at till November, 26<sup>th</sup>!