

## MAT1381 Personal project and seminary

[30h] 8 credits

This course is taught in the 2nd semester

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French
First cycle

#### Aims

The goal of this activity is to stimulate the students to start personal research. They will discover in an active way a field of mathematics not covered in other courses. This activity will improve their written and oral presentation skills.

### Main themes

Under the direction of a member of the department of mathematics, each student will choose a subject and develop it in a personal way. The work leads to a report and its oral presentation in a seminary.

#### **Content and teaching methods**

Each student will be invited to choose a subject on which he will work personally in order to produce a text of about twenty pages, and to give a one-hour talk to his fellow students.

At the first meeting, several subjects will be proposed, with detailed suggestions on the work to be done, and bibliographic hints. Some examples: ordinals and transfinite induction, recursive functions, Stone duality, structure of finite groups, adjoint functors in algebra, classification of surfaces.

During the second week, the students will be asked to communicate their choice and the name of the supervisor of their work. The task should be finished around Easter. After the holidays, each student will have to give a one-hour talk on his work and to provide a copy of his text to all participants.

# Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

The evaluation will depend on the quality of the talk and of the text.

#### Other credits in programs

MATH13BA	Troisième année de bachelier en sciences mathématiques	(8 credits)	Mandatory
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