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## Automatic machinery mechanics

### Finalità

The course provides the knowledge required for a proper functional design of automatic machines. For this purpose, cinematic, static and dynamic analysis of machine parts on varying working conditions are studied

### Programma

Functional problems in automatic machines.  
Rigid automation and flexible automation.  
Functional architecture of automatic machines.  
Description of operating modes.  
Mechanisms for automatic machines.  
Dimensioning of automatic machines.  
Simulation methodologies.

### Attività d'esercitazione

Laboratory exercises are scheduled.

### Modalità d'esame

The exam consists in an oral examination about course topics and the discussion of a project assigned during the semester.

### Propedeuticità

Progettazione meccanica funzionale (Functional mechanical design).

### Testi consigliati

E. FUNAIOLI, A. MAGGIORE, U. MENEGHETTI: "Lezioni di Meccanica Applicata alle Macchine" Voll. 1-2, Patron Editore, Bologna.  
P. L. Magnani, G. Ruggieri: "Meccanismi per macchine automatiche" Ed. UTET Torino.