GM
Mathematical and Software Engineering

gm.insa-rouen.fr

The Applied Mathematics Department (GM) provides a strong mathematical and software engineering background to address problems in a rigorous and conceptual way with the help of computer science tools. These profiles enter almost immediately the labor market, in all branches of the economy.

ADMISSION
Students can apply to INSA after a postgraduate degree or after two years of higher education in sciences.

COURSES
- teaching: Mathematical Modeling and Numerical Simulation, Statistics and Operational Research, Scientific Computing ...
- 55% of scientific teaching 20% of projects and 25% of humanities (Communication, Foreign Languages, Management ...)
- the first two years [GM3 - 5th and 6th semesters and GM4 - 7th and 8th semesters] constitute a common core programme. The last year proposes three pathes:
  * Decision Aids : Artificial Intelligence, Optimization, Intelligent Systems, Control, Operational Research ...
  * Mathematical Methods for Data Science: Big Data, Machine Learning, Data Approximation, Imaging Sciences, Statistics ...
  * Modeling and Numerical Simulations: PDEs, Numerical Analysis, High Performance Computing, Probabilities, CAGD, Finance, Control, Approximation, Geometric Modeling, Statistics ...
- international dimension: compulsory stay abroad, final year students may study in a foreign university, possibility of preparing a double degree or of making the final year [or one semester] abroad

PROFESSIONAL OPPORTUNITIES
With a very transversal profile, GM engineers integrate both large industrial groups and SMEs, start-ups, banks, insurance companies and information technology companies from all sectors. A significant portion of them are moving towards finance. Graduates have the opportunity to continue their studies with a PhD. Around 15% of GM engineers work in research (doctorate) or research organizations (INRIA, CNRS ...) after obtaining the mathematical engineering degree.
On a real campus
This training takes place near the city of Rouen on the campus of INSA Rouen Normandie, easily accessible with public transports. Student residences are available on campus.

Active teaching methods
Training based on educational concepts to develop students' innovation ability, to deepen their theoretical knowledge, to acquire a know-how, interpersonal skills, especially through projects.

Support for innovation and entrepreneurship
INSN Rouen Normandie is committed to training profiles sensitive to innovation and entrepreneurship. The institute takes part in different promotion programs such as Pépite, which assists young entrepreneurs.

A personalized curriculum
Students have the opportunity to prepare for a research Masters during their 3rd year. They can also do their last year in a similar specialty in another INSA. They can prepare a double-degree in France during their 3rd year:

* double degree with the possibility to do the last year at the University of Paris Dauphine (and to obtain the title of actuary in addition to the Mathematical engineering degree).

* possibility of making a double degree during the last year with a co-accredited Master with the University of Rouen

A professionalizing model
Students have many opportunities to immerse themselves in the professional environment through internships, projects, or even immersion in a company during the last year with a cooperative training course.

Integration into the world of work
The integration of GM engineers into the job market is extremely fast. Some profiles get their first job even before the end of the training. GM engineers are the leaders of tomorrow.

Keep in mind
INSN Rouen Normandie is the first public school of engineering in the region. The themes of its 10 engineering programs, 2 Specialized Masters® and 7 Research Masters, are supported by its 8 laboratories. INSA Rouen Normandie is part of the INSA group, comprising 6 national institutes, one international institute, as well as 7 partner schools.

Registration: http://admission.groupe-insa.fr/