# LISTE DES COURS

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| **UNIVERSITÉ D'ACCUEIL** | **University of Technology of Troyes** |
| **SEMESTRE DANS LE CURSUS** | **Tous** |
| **PROGRAMME DU CLUSTER** | **Tous** |
| **SAISON** | **Tous** |
| **LANGUE D'ENSEIGNEMENT** | **Tous** |
| **DOCUMENT CRÉÉ LE** | **21/11/2026** |

162 cours · 972.0 ECTS au total

| CODE | COURS (LIEN VERS SA DESCRIPTION) | LANGUES D'ENSEIGNEMENT | SAISONS | ECTS |
|---|---|---|---|---|
| LO13 | 3D computer graphics : theory and applications | Français | Spring | 6.0 |
| IC01 | Advanced materials and Manufacturing processes | English | Fall | 4.0 |
| RE14 | Advanced organizations networks | Français | Fall | 6.0 |
| MIC09 | Agile Projects and SAFe | Français | Spring | 3.0 |
| MT03A | Algebra 2 (EN) | English | Fall | 6.0 |
| MT03 | Algebra 2 (FR) | Français | Fall, Spring | 6.0 |
| MT02 | Algebra and analysis | Français | Fall, Spring | 6.0 |
| NF04 | Algorithm | Français | Fall, Spring | 6.0 |
| MT01 | Analysis 1 | Français | Fall, Spring | 6.0 |
| MT04A | Analysis 2 (EN) | English | Spring | 6.0 |
| MT04 | Analysis 2 (FR) | Français | Fall, Spring | 6.0 |
| SY14 | Analysis and dynamics of systems | Français | Fall | 6.0 |
| IF31 | Analyze and design the platforms of the collaborative economy | Français | Spring | 6.0 |
| LO12 | Artificial Intelligence and its applications | Français | Spring | 6.0 |
| EA01 | Automatic and feedback control | Français | Spring | 6.0 |
| SY12 | Automation and industrial control | Français | Fall | 6.0 |
| EN01 | Basic elements in analog electronics | Français | Fall, Spring | 6.0 |
| SY06 | Basic principles of signal analysis and processing | English, Français | Fall | 6.0 |

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|---|---|---|---|---|
| RM01 | Basis for operational safety | Français | Spring | 6.0 |
| MIC05 | Building Information Modeling (micro-certification) | Français | Fall | 3.0 |
| LO17 | Cloud architectures and virtualization | Français | Spring | 6.0 |
| IF06A | Computer Supported Cooperative Work | English | Fall | 6.0 |
| NF14 | Computer-aided management of industrial systems | Français | Spring | 6.0 |
| NF02A | Computers and Networks Organisation | English | Fall | 6.0 |
| NF16 | Conceive and manipulate databases | Français | Fall | 6.0 |
| IF09 | Conceiving a documentary system | — | Fall | 6.0 |
| IF02A | Conducting Object-Oriented System Analysis and Design | English | Fall | 6.0 |
| MQ02 | Continuum solid mechanics | Français | Spring | 6.0 |
| TN15 | Conventional manufacturing technics | Français | Fall | 6.0 |
| GS15 | Cryptology and electronic signature | Français | Fall | 6.0 |
| IF29 | Data Analytics | Français | Spring | 6.0 |
| IF27 | Data and service security | Français | Spring | 6.0 |
| IF28 | Data mining and knowledge | Français | Fall | 6.0 |
| NF21 | Data project design for innovation | Français | Fall | 6.0 |
| MT15 | Data Valuation for the Engineer | Français | Spring | 6.0 |
| IF36 | Data visualisation | Français | Spring | 6.0 |
| IF17 | Decisional architecture | Français | Fall | 6.0 |
| CL04 | Design and management of supply chain Customer-supplier coordination | Français | Spring | 6.0 |
| IF02 | Design and Modelling of information systems | Français | Spring | 6.0 |
| CS21 | Design of mechanical systems within a framework of sustainable development | Français | Spring | 6.0 |
| NF19 | Digital infrastructure fondamentals | Français | Fall | 6.0 |
| MQ03 | Dynamics and vibration of mechanical systems | Français | Fall | 6.0 |
| EV12 | Ecodesign, clean Technologies, and recycling | Français | Spring | 6.0 |
| EA07 | Electrical actuator | Français | Fall | 6.0 |

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|---|---|---|---|---|
| EN06 | Electronic components, systems, sensors and instrumentation | Français | Spring | 6.0 |
| RP01 | Engineering Problem Solving | Français | Spring | 6.0 |
| FQ03 | Experimental plans | Français | Spring | 6.0 |
| RM02 | Feedback data analysis | Français | Fall | 6.0 |
| PHY03 | Fields, Waves, Vibrations, Propagations | Français | Fall | 6.0 |
| ST10 | Final project/Master Thesis | Français | Fall, Spring | 30.0 |
| MQ06 | Finite elements modelling | Français | Spring | 6.0 |
| MQ07 | Mechanique de fluide | Français | Fall | 6.0 |
| GL02 | Fondamentals of software engineering | Français | Fall | 6.0 |
| GP27 | Forecasting methods and inventory control | Français | Fall | 6.0 |
| SFB1 | French as a Foreign Language intensive class (European level B1) | Français | Fall, Spring | 4.0 |
| SFB2 | French as a foreign language intensive class (European level B2) | Français | Fall, Spring | 4.0 |
| MIC06 | Implementation of Interoperability in the PLM Domain (Micro-Certification) | Français | Spring | 3.0 |
| EA08 | Implementation of mechatronic systems | Français | Spring | 6.0 |
| GP28 | Industrial excellence | Français | Fall | 6.0 |
| SY20 | Industrial intelligence (MES/SAP tools) | Français | Spring | 6.0 |
| TS02 | Industrial risks management | Français | Fall | 6.0 |
| SY15 | Industrial systems simulation | Français | Spring | 6.0 |
| TN78 | Industrialization and advanced manufacturing technologies | Français | Spring | 6.0 |
| CS22 | Industrialization of mechanical systems | Français | Fall | 6.0 |
| SY40 | Industry 4.0: industrial transition and optimization of time-based competition | English, Français | Fall | 6.0 |
| IF34 | Information System Technologies | Français | Spring | 6.0 |
| MIC08 | Information Systems Architecture for BIM | Français | Spring | 3.0 |
| IF22 | Information Systems Management | — | Spring | 6.0 |
| IF03 | Information systems security | Français | Spring | 6.0 |
| IF01 | Information Theory and Coding | Français | Fall | 6.0 |

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|---|---|---|---|---|
| RE02 | Information Transmission | Français | Spring | 6.0 |
| CL07 | Integrated logistics support and customer services | English, Français | Fall | 6.0 |
| RM04 | Intelligent maintenance | Français | Spring | 6.0 |
| CL01 | International trade and logistics | Français | Spring | 6.0 |
| RE04 | Internet Networks | Français | Spring | 6.0 |
| ST09 | Internship in a Company with Final Presentation | Français | Fall, Spring | 30.0 |
| MIC01 | Introduction to CATIA automation (micro-certification) | Français | Fall | 3.0 |
| TN14 | Introduction to computer-aided design | Français | Fall | 6.0 |
| TN14A | Introduction to computer-aided design (EN) | English | Spring | 6.0 |
| GP30 | Introduction to econometrics and pricing | English, Français | Spring | 6.0 |
| LO11 | Introduction to Internet of things | Français | Spring | 6.0 |
| MIC07 | Introduction to IT Project Management (Micro-Certification) | Français | Spring | 3.0 |
| SD10 | Introduction to literature search | English, Français | Fall | 2.0 |
| TNEV | Introduction to management and realisation of an mechatronic project | Français | Fall, Spring | 6.0 |
| TN08 | Introduction to materials processing | Français | Spring | 6.0 |
| TN12 | Introduction to mechanical systems design | Français | Fall | 6.0 |
| MQ01 | Introduction to mechanics of materials and structures | Français | Fall | 6.0 |
| TN01 | Introduction to the definition and manufacturing of a technical object | Français | Fall, Spring | 6.0 |
| IF15 | Knowledge Engineering | English, Français | Fall | 6.0 |
| LFB1 | Level B1 French - level B1, oral and written | Français | Fall, Spring | 4.0 |
| LFB2 | Level B2 French - B2 level, oral and written | Français | Fall, Spring | 4.0 |
| LFC1 | Level C1 French - C1 level, oral and written | Français | Fall, Spring | 4.0 |
| CL03 | Logistics of transportation and distribution | Français | Spring | 6.0 |
| EG23 | Man/machine interface and ergonomics | Français | Spring | 6.0 |
| TN04 | Management and Implementation of an Engineering Project: Introduction | Français | Fall, Spring | 6.0 |

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|---|---|---|---|---|
| IF05 | Managing software project | Français | Spring | 6.0 |
| MMPE | Material and Mechanical Project of Engineering | English, Français | Fall, Spring | 6.0 |
| MQ05 | Material selection | Français | Fall | 6.0 |
| MQ21 | Materials forming process and numerical simulation | Français | Fall | 6.0 |
| EV11 | Materials lifecycle management | Français | Fall | 6.0 |
| MT12 | Mathematical Tools for Engineers | Français | Fall | 6.0 |
| PHYS02 | Mechanics | Français | Fall | 6.0 |
| PHYS02A | Mechanics of rigid bodies (EN) | English | Spring | 6.0 |
| MQ09 | Meshing and adaptation methods | Français | Spring | 6.0 |
| RE13 | Mobile and Wireless Network | Français | Fall | 6.0 |
| RE21 | Mobile technologies: ergonomics and uses | Français | Spring | 6.0 |
| IC03 | Modeling and optimization of structures and processes | English | Fall | 4.0 |
| SY18 | Modeling and performance evaluation tools | Français | Spring | 6.0 |
| MOD1 | Modeling for PLM (Product Lifecycle Management) Careers | Français | Fall | 6.0 |
| SM06 | Modeling of Coupled Thermomechanical Phenomena | Français | Fall | 6.0 |
| IF14 | Modelling of an organization and its trades | Français | Fall | 6.0 |
| RM03 | Monitoring and prognosis - PHM tools | Français | Spring | 6.0 |
| RE23 | Network management and control | Français | Spring | 6.0 |
| RE16 | Network security | Français | Fall | 6.0 |
| RE12 | Network services | Français | Spring | 6.0 |
| MT13 | Numerical methods for engineer | Français | Fall | 6.0 |
| LO14 | Operating Systems administration | Français | Fall | 6.0 |
| MT14 | Operations Research | English, Français | Fall | 6.0 |
| RE20 | Operator Networks | Français | Spring | 6.0 |
| IF19 | Organisational diagnostic | Français | Fall | 6.0 |
| GP06 | Organization and management of production | Français | Fall | 6.0 |
| LO10 | Oriented Services architectures | Français | Spring | 6.0 |

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|---|---|---|---|---|
| MS11 | Physical measurement and instrumentation | Français | Fall, Spring | 6.0 |
| PHYS11 | Point mechanics | Français | Fall, Spring | 6.0 |
| IF23 | Position determination technology (Geolocalization indoor and outdoor) | Français | Spring | 6.0 |
| NF06 | Practice of programming | Français | Fall | 6.0 |
| NF06A | Practice of programming (EN) | English, Français | Spring | 6.0 |
| LO02A | Principles and practice in object-oriented programming | English | Fall | 6.0 |
| LO02 | Principles of, and practice in object-oriented programming | Français | Fall | 6.0 |
| MIC02 | Product as a service Lifecycle Management (micro-certification) | Français | Fall | 3.0 |
| GP17 | Production planning and scheduling | English | Spring | 6.0 |
| SY17 | Production systems design | Français | Fall | 6.0 |
| IF08 | Project Management | Français | Spring | 6.0 |
| MQ04 | Properties of materials | Français | Spring | 6.0 |
| IC02 | Residual stress engineering | English | Fall | 4.0 |
| IF37 | Responsible conception of interated systems | Français | Spring | 6.0 |
| SC04 | SC04 : Communication, persuasion and social influence | Français | Fall | 4.0 |
| IF26 | Secure Mobile application design | Français | Fall | 6.0 |
| SY16 | Signal and images digital processing | Français | Spring | 6.0 |
| FQ01A | Statistical process control and quality assurance | English, Français | Fall | 6.0 |
| SY02A | Statistics for the engineer | English, Français | Fall | 6.0 |
| MQ16 | Structure dimensionning by a mixed numerical / experimental approach | Français | Fall | 6.0 |
| CM03 | Structure, properties and reactivity of metallic solids | Français | Spring | 6.0 |
| PETM | Student Projects – MIND Pedagogy | English, Français | Fall, Spring | 4.0 |
| TN20 | Study and dimensionning of mechanical systems | Français | Spring | 6.0 |
| TS01 | Systems security | Français | Spring | 6.0 |

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|---|---|---|---|---|
| TN02 | Technology and introduction to mechanical design | Français | Fall | 6.0 |
| PHYS04 | Thermic, energitic and thermodynamic machines | Français | Spring | 6.0 |
| MQ13 | Thermics and machine thermodynamics | Français | Spring | 6.0 |
| SY05 | Tools for decision-making strategy | Français | Spring | 6.0 |
| SY04 | Tools for network modeling | Français | Fall | 6.0 |
| IF20 | Trade process modelling | — | Fall | 6.0 |
| EN08 | Transformation and utilisation of electric energy | English, Français | Fall | 6.0 |
| MIC04 | Transformation of Industries and Services through Digitalization (Micro-Certification) | Français | Fall | 3.0 |
| RE06A | Unified Communications | English | Fall | 6.0 |
| CL10 | Urban logistics and mobility | Français | Fall | 6.0 |
| IF10 | Usage centred conception | Français | Fall | 6.0 |
| CS01 | Value analysis under extreme constraints | Français | Spring | 6.0 |
| CS01A | Value Analysis under extreme constraints (EN) | English | Fall | 6.0 |
| CL02 | Warehouse organization and management | Français | Fall | 6.0 |
| LO07 | Web Technologies | Français | Spring | 6.0 |
| SY22 | Wireless Systems | Français | Spring | 6.0 |
| | **Total** | | | **972.0** |