European partnership study opportunities
IUT A of Lille (Institut universitaire de technologie A de Lille) established in 1966, has already turned out more than 30,000 graduates. For 50 years, IUT A has kept abreast of scientific and technological advances. Its permanent aim is to make young people efficient and adaptable. This original vocational training has proved to be successful over all these years both for companies and for students.

Our IUT is proud to offer diversified curricula:
- classical training
- training with apprenticeship (chemistry and business departments)
- multimedia training (electronics, biology and business departments)
- continuing education
- post-DUT courses
- licences professionnelles (eq. vocational bachelor degrees Eng)

Our constant concern is to provide each student with sound technological skills, as well as develop their human resources, particularly through the numerous contacts with industry and international cooperation with fifty foreign institutions, mainly in Europe. These partnerships will enable our students to integrate professionally and be competitive or continue their studies. Thus, we fulfill our educational mission and hope to maintain the trust of companies, which will then offer placements and jobs to our graduates.

The following pages will present our IUT. They are not meant to give thorough information, but rather an overview of the courses offered by our seven departments. More detailed information can be obtained from our offices (addresses and telephone numbers hereafter).

I hope this brochure will help our students to make the right choice for their future.

François WAUQUIER
Director

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Academic year at IUT A

IUT A of Lille is a faculty of engineering of the University of Lille, which offers training courses for an undergraduate vocational degree: DUT (diplôme universitaire de technologie).

It has: 7 departments (chemistry, biological engineering, electronics and automatic control engineering, mechanical and production engineering, business studies, computer science, physics and applied sciences), 15 vocational bachelor’s degrees (3 years - 6 semesters) and a continuing education division.

It offers 4-semester courses split over 2 years. The courses consist in lectures, seminars or tutorials (TD), laboratory sessions (TP), for a weekly workload of about 50 hours (35 hours/class contact) per student. Besides, tutored projects enable students to run some work of their own on a specific subject. At the end of the second year, students have to complete an industrial placement of at least 10 weeks. Attendance to all courses is compulsory.

The curriculum is clearly defined in a national syllabus approved by the Ministry of Education, which includes 300 hours of language and communication courses. Each department can adapt 10 to 20% of the program in response to local or regional needs or opportunities.

There is a continuous assessment system over the 2 years. Repeating a class is only possible once, but the procedure is seldom used. Provision is made for mature students, employees and unemployed people to prepare for the DUT in 2 or 3 years under the continuing education scheme.

General information

IUT A of Lille is a faculty of engineering of the University of Lille, which offers training courses for an undergraduate vocational degree: DUT (diplôme universitaire de technologie).

It has: 7 departments (chemistry, biological engineering, electronics and automatic control engineering, mechanical and production engineering, business studies, computer science, physics and applied sciences), 15 vocational bachelor’s degrees (3 years - 6 semesters) and a continuing education division.

It offers 4-semester courses split over 2 years. The courses consist in lectures, seminars or tutorials (TD), laboratory sessions (TP), for a weekly workload of about 50 hours (35 hours/class contact) per student. Besides, tutored projects enable students to run some work of their own on a specific subject. At the end of the second year, students have to complete an industrial placement of at least 10 weeks. Attendance to all courses is compulsory.

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There is a continuous assessment system over the 2 years. Repeating a class is only possible once, but the procedure is seldom used. Provision is made for mature students, employees and unemployed people to prepare for the DUT in 2 or 3 years under the continuing education scheme.

Foreword

François WAUQUIER
Director

Academic year at IUT A

The academic year is run on a semester basis for all departments’ organization. ERASMUS students are welcome for full academic years, semesters or for 3-month projects.

The dates below are for information only and may be subject to slight variations:

Autumn semester:
- 2nd-year: 1st Monday in September/late January
- 1st-year: 3rd Monday in September/late January

Spring semester:
- 2nd-year: early February/end of June (including industrial placement)
- 1st-year: early February/end of June

How to apply

Applications by both home and foreign students must be made through IUT A - admissions office by completing an application form and producing the transcripts of secondary school results. Applicants are advised to apply as early as possible, the closing date usually being in May.

Students are liable to pay for registration fees, service costs and Social Security. There are no tuition fees.

ERASMUS students are admitted free of charge, under formal agreement between their home universities and IUT A.

Applications are received at the international office of IUT A through their home institution.

Admission enquiries

General information
Address: IUT A de Lille, Cité scientifique - BP 90179 59653 VILLENEUVE D’ASCQ CEDEX - FRANCE
Website: www.iut-a.univ-lille.fr
Admissions office: Tel: +33 3 59 63 21 04
Applications
European students - contact the international office Tel: +33 3 59 63 21 07 - Fax: +33 3 59 63 21 08
E-mail: iut-ri@univ-lille1.fr
Educational information
Information on curricula and any pedagogical matters can be obtained directly from each department.
Chemistry

Introduction and objectives of the course
The chemistry department at IUT A of Lille offers a vocational course on a full-time basis as well as under continuing education or apprenticeship schemes. This course has both theoretical and practical objectives: it aims at training highly skilled technicians, direct aides to engineers or researchers, in all the fields of chemistry and chemistry-related industries: research, development, production, analysis and control.

The DUT graduate in chemistry must be able to implement the engineer’s ideas and to act as the interface between the engineer and the workers. Adaptability to different fields of activity, special concern with environmental issues and quality processes are key aspects of the course.

Career and study prospects
The most successful graduates can apply for further studies in chemistry to most of the engineering schools (écoles d’ingénieurs) in France: ENS, INSA, ENSAIT, ESTI, ITECH.

Graduates of this course can find excellent employment opportunities in the following industrial areas:

- Chemical and chemistry-related industries
- Pharmaceutical industries
- Petroleum and petrochemical industries
- Protection of the environment (water, air, soil, waste recycling)
- Rubber
- Food industries
- Glass and ceramic industries
- Textile industries

In full-time initial education, the course is run over 60 weeks over the 2 years, with an average workload of 30-hour class contact per week.

Contact
Tel: +33 3 20 67 73 10
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iut-chimie@univ-lille1.fr

Address:
IUT A de Lille
Département chimie
BP 90179
59653 Villeneuve d’Ascq CEDEX
FRANCE

1st year

TU 1.1: 17 ECTS Technology and chemistry: chemistry - basics, analytical chemistry, inorganic chemistry, organic chemistry
TU 1.2: 13 ECTS General and scientific education: communication skills, metrology and electricity, computing, personal and professional project

2nd year

TU 3.1: 10 ECTS Practical work: analytical chemistry, inorganic & organic chemistry, chemical engineering
TU 3.2: 11 ECTS Professional communication, maths, English, tutored project, AC electricity
TU 4.1: 8 ECTS Chemical engineering, practical work: analytical chemistry, industrial materials, green chemistry
TU 4.2: 10 ECTS Professional situations, communication, chemometrics/quality-first aid, electronics
TU 4.3: 12 ECTS Internship (10 weeks)

Career and study prospects

Career prospects
The successful graduate can work as an assistant engineer with a speciality in analytical chemistry, expertise, quality and process control. S/he will work in a laboratory where s/he will be in charge of the analyses and control of physical and chemical quality during the production process. Job prospects are excellent in private or public research laboratories and in international industrial companies involved in organic chemistry. Graduates can apply for a master’s degree.

Course structure and content

Module 1: 12 ECTS
- General education
- Mathematics, English, management, communication

Module 2: 11 ECTS
- Separate and non-separate analytical methods
- NMR, UV/Visible, RIFT, Raman, AAS, ICP, MS, chromatography GC, HPLC, HRPC, TLC, CE, VDC, soil, air, water

Module 3: 15 ECTS
- Method validation
- Metrology, method validation, sampling, handling HSEQ, GMP, GLP, formulation, cosmetics

Location
CREST
Le Recueil, rue de la recherche
Villeneuve d’Ascq
Biological engineering

Introduction and objectives of the course
The course aims at training highly skilled technicians in the following fields:
- Diagnosis
- Quality control and assurance
- Research and development:
  - in public laboratories (university, SRC, INSERM, INRA)
  - in private laboratories (institut Pasteur, small and medium enterprises)
- Production
- Dietetics
- Sales engineering

Career prospects
- New biotechnologies (biological, genetic, enzymatic engineering)
- Food sectors (production, consumption, nutrition...)
- Health areas (biochemical and biological analysis, dietetics...)
- Pharmaceutical industries
- Environmental areas

1st speciality: Food safety and quality (SQAL)

TU 2: Food quality control
TU 3: English, communication
TU 4: Food safety 1
TU 5: Sensory analysis
TU 6: Tutored project 1
TU 7: Scientific and statutory health monitoring
TU 8: Food quality control
TU 9: Food safety 2
TU 10: Complementary module
TU 11: Tutored project 2
TU 12: Internship either in France or abroad (14 weeks)

2nd speciality: Safety and quality in the health care practices (SQPS)

TU 1: Quality management
TU 2: Financial business
TU 2EC3: Management
TU 3: English, communication
TU 4: Food safety 1
TU 5: Sensory analysis
TU 6: Tutored project 1
TU 7: Scientific and statutory health monitoring
TU 8: Food quality control
TU 9: Food safety 2
TU 10: Complementary module
TU 11: Tutored project 2
TU 12: Internship either in France or abroad (14 weeks)

Admission is granted after assessing the student’s application form, and the applicant’s skills and motivation.

Career prospects
The job opportunities after completing the course are quality consultant and quality trainer.

Many food safety and quality graduates work as quality manager or assistant, certification assistant or manager, hygiene assistant in food industries.

Safety and quality in the health care practices work as quality executive, internal/qualify certified auditor, health-care waste manager, quality manager in hospitals, clinics, laboratories, and old people’s homes...

This vocational degree also enables graduates to join a teaching training college and sit for the CAPLP2 or CAPES (competitive teaching examinations).

Course structure and content

1st speciality: S5 & S6
TU 1: Quality management
TU 2: Financial business
TU 2EC3: Management
TU 3: English, communication
TU 4: Food safety 1
TU 5: Sensory analysis
TU 6: Tutored project 1
TU 7: Scientific and statutory health monitoring
TU 8: Food quality control
TU 9: Food safety 2
TU 10: Complementary module
TU 11: Tutored project 2
TU 12: Internship either in France or abroad (14 weeks)

2nd speciality: S5 & S6
TU 1: Quality management
TU 2: Financial business
TU 2EC3: Health-care structures funding
TU 3: English, communication
TU 4: Quality in the health care practices
TU 5: Medical waste management
TU 6: Tutored project 1
TU 7: Scientific and statutory health monitoring
TU 8: Quality in the health care practices
TU 9: Quality in the health care practices
TU 10: Complementary module
TU 11: Tutored project 2
TU 12: Internship either in France or abroad (14 weeks)
### Electronics and automatic control engineering

**Introduction and objectives of the course**
The course at the electronics and automatic control engineering department aims at training highly-skilled technicians with a good command of areas using electronics, automatic control, PLC (programmable logic controller), industrial computing, supervision, real time, electrotechnics, power electronics, networks, LAN (local area network) modern communication instruments.

Providing future graduates with a scientific, technical and human background will enable them to continue or resume higher studies and facilitate any promotion in their career.

There is a certain international dimension: Students can carry out their training period abroad within the Erasmus programme.

**Career and study prospects**
Owing to the breakthrough of electronics and automatic control in a wide range of domains, students can find excellent opportunities in the following areas as:
- designer and/or production and/or maintenance assistant engineers:
  - Aeronautics, telecommunications...
  - Biomedical laboratories; food industries...
  - Electrical and electronic industries...
- technical salesmen:
  - Industrial sales
  - International sales
  - Team management

The most successful graduates can apply for further studies in electronics or automatic control to most of the engineering schools (écoles d'ingénieurs) in France. Others apply to further university courses in related disciplines.

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### Industrial production management

**Speciality: Packing techniques**

**Introduction and objectives of the course**
Companies are regularly called upon to adapt and change their packaging. In this context, this vocational bachelor’s degree aims to train in one year professionals specialized in packaging innovation, capable of implementing all stages of design to achieve packaging and adapt to major user sectors and taking the environment into account.

Graduates are able to:
- Lead and control a manufacturing process, a production or packaging line and manage the control and quality progress of the production
- Set up and maintain automated production systems
- Develop technological solutions with the customer
- Negotiate the sale or purchase of products or services
- Participate in developing new strategies for quality management of production
- Manage an operational team through communication and organization
- Follow an international business relation

**Admission requirements**
The students eligible for the course are:
- Undergraduates with a BTS (industrial product design, mechanical and industrial automatisms, technical engineer assistant, industrial maintenance, industrialization of mechanical products, electrical engineering, industrial computing and networking services)
- Undergraduates with a DUT (mechanical engineering and industrial automation, electrical engineering and industrial computing, industrial engineering and maintenance, industrial logistics quality and organization)
- Students who have completed the first 4 semesters of the general science and technology degree in mechanics / mechanical engineering / civil engineering (course choice mechanics, mechanical engineering course) or the general science and technology degree, mention electronics / electro technology / automation (industrial production route)

Admission is granted after assessing the student's application form, and the applicant’s skills and motivation after taking an interview and writing a covering letter.

**Career prospects**
Graduates will be employed by manufacturers of packaging and accessories or by packaging users. Many graduates can work as:
- manufacturing or production line managers
- technical staff member for quality control
- packaging design office manager
- packaging buyer
- head of regulatory and standardized follow up
- travelling salesman

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### Course structure and content

**1st year**

- **TU 1.1: 12 ECTS** Energy, digital electronics, computing, electronic systems
  - TU 1.2: 10 ECTS Software tools, studies and production, digital electronics, logical synthesis, digital electronics, logical synthesis, methodology, introduction to project management, tutored project
  - TU 1.3: 8 ECTS English, communication, mathematics, mechanics, electromagnetism

- **TU 2.1: 12 ECTS** Energy, electronic systems, embedded computing, industrial automation & networks
  - TU 2.2: 9 ECTS Software tools, tutored project, introduction to project management, personal and professional project, digital electronics, logical synthesis
  - TU 2.3: 9 ECTS English, communication, mathematics, electromagnetism - sensors

**2nd year**

- **TU 3.1: 11 ECTS** Energy, automation, electronic systems, programming, networks, renewable energy: production and storage
  - TU 3.2: 11 ECTS Software tools, supervision, product life cycle, digital electronics, logical synthesis, digital electronics, tutored project, personal and professional project
  - TU 3.3: 8 ECTS English, communication, mathematics, propagation CEM

- **TU 4.1: 12 ECTS** Internship (11 weeks)
  - TU 4.2: 12 ECTS Tutored project, digital signal processing, personal and professional project, digital electronics, logical synthesis, implementation of "field programmable gate arrays" (FPGA), industrial networks, electrical distribution NFC 15-100
  - TU 4.3: 6 ECTS English, communication, company knowledge, statistical methods - reliability

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**Career prospects**
Many graduates can work as:
- manufacturing or production line managers
- technical staff member for quality control
- packaging design office manager
- packaging buyer
- head of regulatory and standardized follow up
- travelling salesman
Multi-technological systems
Speciality: Rail transport maintenance

Introduction and objectives of the course
This vocational degree is designed to provide students with specific skills in maintenance. The course lays the emphasis on the new security, reliability and efficiency requirements in the transport materials and infrastructures. Subjects include electricity, electrical engineering, management and communication. Students are also required to improve their organizational skills in order to be able to supervise team work and manage technical projects. This vocational degree aims to train People who can rapidly enter the job market and are flexible enough to meet the economic needs and manage the new technologies.

Professionals and industrialists are involved in the teaching of many courses so that the students can be acquainted with the job market requirements. The former also provide support before and during the work placement and supervise tutored projects.

They learn to:
• Conduct the maintenance and manage the planning department
• Improve material performance (reliability, efficiency,…)
• Supervise technicians and workers and liaise with engineers
• Devise technological solutions with the customer
• Take part in the development of new supervision strategies

Admission requirements
The course is eligible for students who have completed the fourth semester of a degree in a similar subject and other undergraduate degrees (BTS or DUT) or another diploma Level III. People not being holder of these qualifications can be admitted after accreditation of prior experiential learning (APEL).

Admission is granted after assessing the student’s application form, and the applicant’s skills and motivation. This course is open to students taking vocational training schemes able to attend a full-time schedule.

Career prospects and partnerships
There are excellent job prospects in rail transport (trolleybus, underground, train…) and in other maintenance fields as works maintenance manager, maintenance consultant, electronic maintenance technician, logistics manager, electronic quality control technician…

Our main industrial partners (SNCF, Alstom, Eurunionne, Transpole, RATP, Bombardier, Séguia…) are thoroughly involved in the training.

Introduction and objectives of the course
The Networks and telecommunications vocational degree is composed of 440 hours of tutorials, 160 hours of tutored projects and a 12-week industrial placement. The 440 hours of tutorials are divided into 120 hours dedicated to professional practice (English, communication, project management) and 320 hours of academic courses.

Career prospects
• Computer engineering
• R&D technical executive network
• Technician, network
• Architect
• Mobile resources manager
• Network program designer...

The Networks and telecommunications vocational training offers employment opportunities for second-year university undergraduates (DUT, BTS and DEUST), for students who come from the 4th semester of a scientific or technological degree and for graduates with a scientific or technological diploma (level III in computing).

There is a certain international dimension: Students can carry out their training period abroad. Teachers will help them in their research and in obtaining grants in partnership with the department of international relations of IUT A.

Admission requirements
Admission is granted after assessing the student’s application form, and the applicant’s skills and motivation.

Course structure and content

<table>
<thead>
<tr>
<th>Module 1: 12 ECTS</th>
<th>Module 2: 11 ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General education</td>
<td>Maintenance of rolling stock and fixed materials</td>
</tr>
<tr>
<td>Communication, English, corporate management and project, law and economics</td>
<td>Organization and maintenance methods, analysis and maintenance of rolling stock and fixed materials, maintenance and logistical policy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 3: 15 ECTS</th>
<th>Module 4: 22 ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided transport technology</td>
<td>Professional education</td>
</tr>
<tr>
<td>Functional analysis of materials and power transmission, electrical energy in fixed and moveable equipment, electronics of embedded systems and communications</td>
<td>Tutored project, conferences and industrial placement (15 weeks)</td>
</tr>
</tbody>
</table>

Location
IUT A de Lille
Campus Cité scientifique
Avenue Paul Langevin
Villeneuve d’Ascq

Vocational bachelor’s degree
Mechanical and production engineering

Introduction and objectives of the course
The French mechanical industry is the fourth largest in the world and comprises 7,000 companies. Students must be able to cope with these companies' requirements: developing a total quality approach, designing at low cost and having a good command of ISO 9000 and 14000 norms.

Therefore they are trained in the areas of quality, design, manufacturing, production management, automation, robotics, CAD/ CAM, materials... Optional modules offer students additional skills in the field of textiles. The industrial placement allows students to step in the industrial world.

Besides its educational missions, the mechanical and production engineering department develops research and technological transfer activities, at local, national, and international levels.

Career and study prospects
The most successful graduates can apply for further studies to most of the engineering schools in France (école nationale supérieure d'arts & métiers...). Others apply to further university courses in related disciplines. A lot of French secondary schools value the GMP graduate's skills and encourage their students to take up this specialist subject in order to continue into higher education.

The course is available on a full-time initial training over 4 semesters (under certain conditions, students can be admitted straight into the 3rd semester) as well as under a continuing education scheme.

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iut-gmp@univ-lille1.fr

Address:
IUT A de Lille
Département GMP
BP 90179
59653 Villeneuve d'Ascq CEDEX

FRANCE

DUT

Introduction and objectives of the course
The vocational bachelor’s degree “industrial transformation” aims to train professionals in the inspection, monitoring and conditional preventive maintenance, operational and capable of integrating directly within an existing organization or setting up an organization with the required monitoring.

The training aims to make these professionals independent and adaptable to any type of company with concerns about the availability and security of their facilities. The vocational bachelor’s degree touches a broad career field, because it includes all the corporate training companies without being limited to chemistry or petrochemical industry. This extended field of competence is related to the fact that many of the methodological and technical tools are common across these sectors. They can be used either by inspection services, or by industrial control companies, or by maintenance services, or by companies which provide services in industrial maintenance.

Admission requirements
This degree is opened to:
• Students who have successfully completed the 2nd year in an industrial degree
• Students who have completed the first four semesters of the degree of the sciences and technology or engineering domain
• Graduates of the DEUST of the industrial domain

The selection is based on an application dossier containing a cover letter and the transcript of records.

Career prospects and partnerships
The graduate can join the internal maintenance department of a company or in a service providing company in industrial maintenance.
• Assistant engineer of the inspection services: in chemical and petrochemical industries
• Assistant engineer in non-destructive monitoring: they are recruited by different organizations and monitoring companies
• Assistant engineer in conditional preventive maintenance: vibratory monitoring, monitoring of lubricants, monitoring of the overheating of electrical equipment
• Assistant engineer in the operation of inspection services: they are recruited by different organizations and monitoring companies

This vocational bachelor’s degree results from the joint efforts of the University of Lille - science and technology, lycée Béhal of Lens and the representatives of various stakeholders in the field of inspection, monitoring and predictive maintenance.

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Address:
IUT A de Lille
Département GMP
BP 90179
59653 Villeneuve d’Ascq CEDEX

FRANCE

Course structure and content

TU 1:  Project management
TU 2: Eco-design, methodology for implementing a monitoring system, prevention of industrial risk
TU 3: Regulation of construction and industrial monitoring, strength of materials, choice of materials, fracture and fatigue, assembly techniques
TU 4: Vibratory monitoring, vibratory analysis, applied mathematics
TU 5: Detection oriented non-destructive control tools and analysis of material defects, CND tools, radiation protection
TU 6: Detection oriented non-destructive control tools and other operation related defect analysis, lubricant monitoring, thermometry
TU 7: Tutoring project
TU 8: Internship (15 weeks)
Introduction and objectives of the course

Eco-design addresses every step of a product life cycle as well as environmental criteria: choice of materials, design, energetic balance, manufacturing, recycling and recoverability. The objective of this approach is twofold: to reduce the negative impact of a product on the environment and foster innovations that can help protect it. Eco-design enhances the mechanical trades and ensures their continuity by implementing innovative technologies that are applicable to many areas of daily life: production of renewable sources of energy, transport (railway, automobile), packaging, home automation...

The technical staff trained in the vocational bachelor's degree will have the technical, scientific and organizational resources required towards that goal by companies with an eco-designed approach. Through a comprehensive process of designing a product and its life cycle, they will be able to:

• Interpret environmental regulations
• Practise environmental management
• Set up specifications starting from a need and translate them into a functional diagram
• Practise eco-design and the analysis of the life cycle
• Negotiate technological solutions with economic partners
• Support innovative projects and technological challenges

Admission requirements

This course is eligible for students holding a:

• BTS: CPI, manufacturing, mechanical and industrial automation, engineering assistant technicians, industrial maintenance, industrial mechanical products
• DUT: GMP (mechanical and production engineering), civil engineering, GEII (electronics and automatic control engineering), MP (physics and applied sciences), chemical engineering – process engineering, industrial maintenance, thermal engineering
• 4th semester of year 3 of a bachelor’s degree industrial science and technology (course of mechanics, mechanical engineering or industrial production)

Career prospects and partnerships

Among the potential jobs for graduates entering the job market we can mention:

• Technical staff for research – research – development – quality control
• Manufacturing manager; production manager; environmental manager
• Task-scheduling – launching – planning manager
• Technical salesman of eco-designed products

More than 40 % of the courses are provided by industrial and institutional partners: Ademe, Afnor, Alstom, Auchan, CCI Grand Lille, CD 2E, GEA, KSB, SKF, Visteon,

• Professional support: poles of competitiveness: I-trans, Maud, Up Tex,...
• Professional associations and unions: AFMV, Alliances, CETIM, FIM, FEDEREC, UIMM

Course structure and content

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<th>S5 : 30 ECTS</th>
<th>S6 : 30 ECTS</th>
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<tbody>
<tr>
<td>TU 1: 10 ECTS Sustainable development, eco-design, life cycle analysis, energetic balance, acoustic optimization, electromagnetic constraints</td>
<td>TU 4: 8 ECTS Industrial maintenance, production logistics, end of life products, environmental management, recoverability and eco-design marketing, quality tools, corporate development</td>
</tr>
<tr>
<td>TU 2: 12 ECTS Research of innovative solutions, creativity, thermodynamics, process and quality control, statistics, choice of materials, chemistry and environment</td>
<td>TU 5: 4 ECTS Mechanical engineering, structural design, mechanical manufacturing processes</td>
</tr>
<tr>
<td>TU 3: 8 ECTS Regulatory and environmental constraints, environmental communication, eco-toxicology, ergonomics, technical English applied to environment</td>
<td>TU 6: 6 ECTS Tutored project</td>
</tr>
<tr>
<td>TU 7: 12 ECTS Internship (16 weeks)</td>
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</tbody>
</table>

Contact

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iut-lp@univ-lille1.fr

Address:
IUT A de Lille
Département GMP
BP 90179
59653 Villeneuve d’Ascq CEDEX
FRANCE
Management, design and industrialization  
Speciality: Innovative textiles

Introduction and objectives of the course
The aim is to train executives with in-depth knowledge of textile products. The training is partly provided by our industrial partners as: Onera, Pronal, Dickson Constant, Potencier Broderies, Titech... The training is completed by special events (Fetex), exhibitions (TechTextiles) and many company visits. There is a strong partnership between IUT A and the ENSAIT of Roubaix, which received the support of the managerial branch (UIT Nord) and the textile companies association (ClubTex).

Admission requirements
The students eligible for the course are:
- Students with a two-year undergraduate degree in related subjects (industrial product design, mechanical processes, electrical engineering, mechanical engineering)
- Students who have successfully completed the fourth semester of a scientific and technological degree

Admission is granted after assessing the student’s application form, and the applicant’s skills and motivation after taking an interview and writing a covering letter.

Career prospects
Many graduates can work as: technical executive, industrial engineering executive, manager...

The targeted sectors are: medical textiles, geotextiles, civil engineering, textile distribution...

Course structure and content

<table>
<thead>
<tr>
<th>S5 : 30 ECTS</th>
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<tbody>
<tr>
<td>TU 1: Communication skills</td>
<td></td>
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<tr>
<td>TU 2: Project management</td>
<td></td>
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<tr>
<td>TU 3: Basic textiles</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>S6 : 30 ECTS</th>
<th></th>
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<tbody>
<tr>
<td>TU 4: Design of innovative textiles</td>
<td></td>
</tr>
<tr>
<td>TU 5: Product management</td>
<td></td>
</tr>
<tr>
<td>TU 6: Tutored project</td>
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<tr>
<td>TU 7: Internship (14 weeks)</td>
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Vocational bachelor’s degree

Industrial production management  
Speciality: Industrial computer vision

Introduction and objectives of the course
Reaching optimal quality in the production of manufactured goods is a challenge that the European industry faces on world markets. This is why several manufacturing plants have been equipped with robots which control automatically the quality of manufactured goods (metrology, visual control). This development entails an important demand for highly qualified technicians able to set up, parameterize and maintain such an advanced vision system.

Subjects include industrial computer vision, robot vision and control quality. Students learn to:
- Set up industrial vision automation systems
- Use and monitor automation machines
- Manage the industrial production quality control processes
- Devise technological solutions for the customer
- Work with engineers
- Develop new strategies of production quality control

The course is also an introduction to the quality control requirements in industrial production and develops the students’ organizational skills to make them able to supervise team work and manage technical projects.

Admission requirements
The students eligible for the course are:
- Students with a two-year undergraduate degree in related subjects (industrial product design, mechanical and automation processes, computer science and industrial network, electrical engineering, mechanical engineering)
- Students who have successfully completed the fourth semester of a scientific and technological degree (electronic or electrical engineering and automation speciality)

Admission is granted after assessing the student's application form, and the applicant’s skills and motivation after taking an interview and writing a covering letter.

Career prospects
Many graduates can work as:
- industrial process control laboratory technicians,
- automation system coordinators,
- quality control managers,
- industrial research and development managers...

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Villeneuve d’Ascq

Course structure and content

<table>
<thead>
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<th>S5 : 30 ECTS</th>
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<td>TU 1: Industrial control, programming</td>
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<tr>
<td>TU 2: Quality management and metrology</td>
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<td>TU 3: Mechanical design and modelization</td>
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<td>TU 4: Signal analysis</td>
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<td>TU 5: English</td>
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<td>TU 6: Communication techniques</td>
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<table>
<thead>
<tr>
<th>S6 : 30 ECTS</th>
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<tbody>
<tr>
<td>TU 7: Industrial vision</td>
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<td>TU 8: Electrical maintenance</td>
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<td>TU 9: Design methodologies</td>
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<td>TU 10: Tutored project</td>
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<td>TU 11: Work placement (16 weeks)</td>
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</table>
Management of organizations

Speciality: International trade assistant manager

Introduction and objectives of the course

Hauts-de-France is a region with a long industrial history which managed to cope with globalization thanks to the development of many distribution companies: mail order sales, large retail chains and more recently, clothing and sports companies as well as home improvement stores... Many companies have specialized or expanded their activity abroad and gained a significant foothold, mainly in the food industry market.

The course aims at training graduates in the following fields:
- Globalization: languages, negotiation, civilization...
- International management methods
- The supply chain (supplying, freight, storage, distribution)
- Working with other countries outside the EU (which involves specific knowledge of customs clearance formalities for example)

Admission requirements

The student must practise foreign languages, understand foreign mentality and international management systems. Skills in English will be assessed by an achievement test. Courses in a second foreign language are available for all levels, especially in Dutch. The course is aimed at DUT or BTS graduates in this field. Admission is granted after assessing the applicant's skills and motivation.

Career prospects

There are excellent career opportunities in international logistics.

Course structure and content

<table>
<thead>
<tr>
<th>Tuition type</th>
<th>ECTS</th>
<th>Course content</th>
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<tbody>
<tr>
<td>S5: 30 ECTS</td>
<td>TU 1: 10 ECTS</td>
<td>International trade techniques, international logistics, international transport and customs</td>
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<td>TU 2: 11 ECTS</td>
<td>International communication, new information technologies, foreign languages 1 &amp; 2</td>
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<td>TU 3: 9 ECTS</td>
<td>International relations, international marketing and distribution</td>
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<tr>
<td>S6: 30 ECTS</td>
<td>TU 4: 8 ECTS</td>
<td>International trade, management, English, communication, new information technologies, foreign languages 1 &amp; 2</td>
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<td>TU 5: 4 ECTS</td>
<td>International project</td>
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<td>TU 7: 10 ECTS</td>
<td>Internship (15 weeks)</td>
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</table>
Management of organizations
Speciality: Social worker and accountancy

Introduction and objectives of the course
This vocational degree aims to train men and women working as social workers and accountants (involved in the drawing-up of the payroll).

The vocational degree for social workers and accountants must be completed in one year. The academic year is divided into 2 semesters amounting to 450 hours of lectures, 150 hours of tutored projects and 16 weeks of industrial placement from January to April. This vocational degree features an introduction to administrative practices, tax returns and employment law (contracts and documents).

It gives second-year students in accountancy additional skills by means of:
- An elaborate reflection and enforcement of social and labour legislation
- New subjects such as international accounting, international law, professional ethics, applied computing, legal and financial
- English, pay and social administrative practices (documents, formalities...)

What is worth mentioning about the course is the operational use of the computing tool. Courses are provided by professionals and consist of class contact hours and tutored projects.

Admission requirements
Admission is granted after assessing the student’s application form, and the applicant’s skills and motivation.

The students eligible for the course are:
- Full-time students and apprentices: students who come from BTS and DUT in related disciplines or second-year students in the service sector or accountancy (For example: second and third year students in the legal field, business, management, accounting or assistant small and medium-sized firms, assistant BTS, DUT GEA, BTS legal careers,..)
- People in training schemes (including people attending in-service training) and accounting firms employees or the like.

This course is also open to students in vocational training schemes able to attend a full-time schedule after an accreditation of prior experimental learning (APEL).

Career prospects
Job prospects are excellent in accounting firms, in administrative or accounting departments, in the human resources departments of medium-sized firms, etc. It is possible to apply for a master’s degree in human resources and management.

Introduction and objectives of the course
Training flexible computing professionals with skills in software development as well as system design and analysis. Developing both the theoretical and practical skills of students, thus enabling them to adapt to the professional environment immediately with excellent prospects of furthering their careers. The profession of computer engineer requires creativity, method and dedication.

Career and study prospects
The most successful graduates can apply for further studies in most French engineering schools (écoles d’ingénieurs). Others apply for further university courses in related subjects, in which they usually are successful.

There are career opportunities in such diverse fields as:
- System analysis and development, working as software analysts/programmers and system consultants, in the IT departments of major commercial, industrial or administrative organizations and banks.
- Implementation and maintenance of software systems in a wide range of companies.
- User support, acting as a link between company IT departments and end-users.

Computer science

Introduction and objectives of the course
Training flexible computing professionals with skills in software development as well as system design and analysis. Developing both the theoretical and practical skills of students, thus enabling them to adapt to the professional environment immediately with excellent prospects of furthering their careers. The profession of computer engineer requires creativity, method and dedication.

Career and study prospects
The most successful graduates can apply for further studies in most French engineering schools (écoles d’ingénieurs). Others apply for further university courses in related subjects, in which they usually are successful.

There are career opportunities in such diverse fields as:
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- Implementation and maintenance of software systems in a wide range of companies.
- User support, acting as a link between company IT departments and end-users.

Course structure and content

1st year

TU 1: 5 ECTS Employment contract management
TU 2: 5 ECTS Labour law II: implementing and changing the working contract
TU 3: 5 ECTS Labour law III: settlement of industrial disputes
TU 4: 5 ECTS Labour law III: settlement of industrial disputes
TU 5: 5 ECTS Social law I: social security (or insurance)
TU 6: 5 ECTS Professional tools: improvement of the students’ computing and administrative skills
TU 7: 5 ECTS Litigation law: the main aspects of litigation law are developed

TU 8: 5 ECTS Employment contract management
TU 9: 5 ECTS Labour law III: settlement of industrial disputes
TU 10: 5 ECTS Labour law III: settlement of industrial disputes
TU 11: 5 ECTS Social law I: social security (or insurance)
TU 12: 5 ECTS Professional tools: improvement of the students’ computing and administrative skills
TU 13: 5 ECTS Litigation law: the main aspects of litigation law are developed

2nd year

TU 1: 10 ECTS Project management, communication, and decision-making support
TU 2: 14 ECTS Graphs and languages, analysis and digital methods, accounting, financial, legal and social environment, computer project management, communication, English, personal professional project

TU 3: 10 ECTS System and network administration, distributed programming, web programming, design and development of mobile applications, additional computing with a view to immediate employment, integrated project – additional elements
TU 4: 10 ECTS Entrepreneurship workshops, operational research and decision-making support, communication – corporate communication, working in English
TU 5: 6 ECTS Software engineering methodology, integrated project – working as an IT professional, personal professional project – clarifying one’s project

TU 6: 10 ECTS International law: international labour and social law
TU 7: 6 ECTS Labour law III: settlement of industrial disputes
TU 8: 5 ECTS Labour law III: settlement of industrial disputes
TU 9: 5 ECTS Social law I: social security (or insurance)
TU 10: 5 ECTS Professional tools: improvement of the students’ computing and administrative skills
TU 11: 5 ECTS Litigation law: the main aspects of litigation law are developed

TU 12: 10 ECTS Project management, communication, and decision-making support
TU 13: 14 ECTS Graphs and languages, analysis and digital methods, accounting, financial, legal and social environment, computer project management, communication, English, personal professional project

TU 14: 8 ECTS Entrepreneurship workshops, operational research and decision-making support, communication – corporate communication, working in English
TU 15: 12 ECTS Internship (10 weeks)
**Computer and software**

Speciality: Development and internet/intranet administration

**Vocational bachelor’s degree**

**Introduction and objectives of the course**

This vocational bachelor’s degree aims to train highly skilled programmers able to develop and administer software architectures related to the implementation of Internet websites, ranging from software development to the administration of computer networks. Discussions with the actors of the information system and the project manager/customer interface are included.

**Admission requirements**

Applicants will first be shortlisted and then selected after testing their skills and motivation.

**Career prospects**

Many graduates can work as:
- web developers,
- systems administrators,
- data base administrators...

The targeted sectors are digital services, scientific and technical activities, communication and information, financial and insurance activities, commercial activities.

**Course structure and content**

**S5 : 30 ECTS**

- TU 1: 6 ECTS Software engineering
- TU 2: 6 ECTS Basic knowledge in databases and web
- TU 3: 6 ECTS Operation systems
- TU 4: 6 ECTS Mathematics (statistics, cryptography)
- TU 5: 6 ECTS Expression and communication skills, project management, English, web marketing, corporate culture - level 1

**S6 : 30 ECTS**

- TU 6: 10 ECTS Expression and communication skills, project management, English, web marketing, corporate culture - level 2
- TU 7: 10 ECTS Professionalisation
- TU 8: 10 ECTS Projects and work placement (12 weeks)

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**Computer networks and telecommunications**

Speciality: Design, management of network infrastructure

**Vocational bachelor’s degree**

**Introduction and objectives of the course**

This vocational degree provides specific skills in the design, management, administration, optimisation and evolution of network infrastructure and associated systems.

**Admission requirements**

The course is eligible to undergraduate students with a degree in computing or networks (DUT, BTS students taking a computer science Bsc who have successfully completed 4 semesters, DEUST). The course is eligible to students in initial or further education or in professional training contracts. It is available to wage-earners with a few years’ experience in the relevant field.

**Career prospects**

Many graduates can work as:
- web developers,
- systems administrators,
- data base administrators...

The targeted sectors are digital services, scientific and technical activities, communication and information, financial and insurance activities, commercial activities.

**Course structure and content**

**S5 & S6 : 60 ECTS**

- TU 1: 6 ECTS Design and maintenance of network infrastructure for hardware and protocols
- TU 2: 6 ECTS Implementation and management of corporate IP and communication departments; network security
- TU 3: 6 ECTS Implementation of a company LAN; implementation and use of a solution for network supervision
- TU 4: 6 ECTS Management and corporate communication bases, principles of project management
- TU 5: 6 ECTS Design of a teaching-related network solution designed for team work
- TU 6: 6 ECTS Implementation of a communication and online collaborative infrastructure for the company
- TU 7: 4 ECTS Understanding and writing in scientific and technical English
- TU 8: 8 ECTS Design of a global network solution for team work
- TU 9: 12 ECTS Work placement (12 weeks)
Physics and applied sciences

**Introduction and objectives of the course**

The department of applied sciences trains industrial executives who are able to adapt to modern techniques of measurement and control in many sectors of research and industry. The DUT graduate in physics and applied sciences is a versatile engineer. They are usually quite successful.

**Career and study prospects**

There are excellent career opportunities in such diverse industrial sectors as: instrumentation and sensors, metrology, quality control, electrical and electronic industries, mechanical construction, chemical and chemistry-related firms, data processing, signal processing...

**1st year**

- **TU 1.1**: 10 ECTS English, communication skills, vocabulary, tutored project, mathematics
- **TU 2.1**: 10 ECTS Technical English, communication integration techniques, mathematics, tutored project 1, personal professional project
- **TU 2.2**: 10 ECTS Electromagnetism and applications, electronics, informatics instrumentation, materials structures, materials properties
- **TU 2.3**: 10 ECTS Oxidation reduction and chemical kinetics, marketing & materials, optics, thermal transfers

**2nd year**

- **TU 3.1**: 11 ECTS Technical English, communication skills, metrology, statistics, tutored project
- **TU 3.2**: 9 ECTS Fluid mechanics, optics, photonics, vibratory mechanics
- **TU 3.3**: 10 ECTS Signalisation, instrumentation, spectroscopic techniques, electrotechniques, electronic instrumentation
- **S1**: 30 ECTS
- **S2**: 30 ECTS

**Introduction and objectives of the course**

The development of new standards or the characterization of reference materials is necessary. Metrology is a key parameter in assessing the biological, chemical, eco toxicological and environmental risks. Companies must adapt quickly to the current evolutions and metrological constraints whether it is the current level of measurement traceability or the connection of their instruments in order to control the manufacturing processes and thus ensure the quality of products on an international level.

**Admission requirements**

- Students having completed a 2nd year at university: science and technology bachelor's degree, major chemistry, physics and physical sciences, life sciences.

**Career prospects and partnerships**

- Assistant engineer in measurements and certifications
- Assistant engineer in qualification and metrology of production management
- Technician in charge of measuring devices
- Reference technician in an analytical laboratory or in a hospital
- Assistant project manager in measurements and certifications organisations

The vocational bachelor's degree involves many partners in education, thus allowing continuous adaption to the various technological developments. These partners provide the industrial dimension, expertise and experience in areas such as corporate metrology, the perfect command of measurement and project management.

**Course structure and content**

- **TU 1**: 8 ECTS General and quality metrology
- **TU 2**: 8 ECTS Measuring chain
- **TU 3**: 8 ECTS Analytical techniques and methods
- **TU 4**: 6 ECTS Professional communication and corporate knowledge
- **TU 5**: 3 ECTS Specific environmental metrology and regulations
- **TU 6**: 3 ECTS Metrology in environmental measures
- **TU 7**: 3 ECTS Metrology in biological measures
- **TU 8**: 3 ECTS Measures and instrumentation
- **TU 9**: 6 ECTS Tutor's project
- **TU 10**: 12 ECTS Work placement (16 weeks)
Contact

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