International Students Guide – Table of contents

SCHOOL OF ENGINEERING (Campus Sabadell)
UNIVERSITAT AUTÒNOMA DE BARCELONA
CURS 2009-2010

School of Engineering
Campus Sabadell

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International Students Guide – Main contact information

INSTITUTIONAL IDENTIFICATION

Universitat Autònoma de Barcelona EBARCELO02
Oficina de Relacions Internacionals
Edifici A
E-08193-Bellaterra (Cerdanyola del Vallès)
Barcelona – Spain
Phone: +34 93 581 32 64
Email: of.rel.internacionals@uab.cat

VICERRECTOR OF INTERNATIONAL RELATIONS

Dr. Mercedes Unzeta Lòpez
Vicer Rector for International Relations
Phone: +34 93 581 14 39
Email: vr.rel.exteriors@uab.cat

EXCHANGE OFFICE AT SCHOOL OF ENGINEERING

Institutional Mobility Coordinator
Dr. David Jiménez Jiménez
Phone: +34 93 581 32 18
Fax: +34 93 581 34 43
Email: David.jimenez@uab.cat

Departamental Coordinators:

Pr. Jordi Pons Aróztegui
Phone: +34 93 728 77 57
Email: Jordi.pons@uab.cat

Pr. Ricardo Juan Toledo Morales
Phone: +34 93 728 77 46
Email: Ricardo.toledo@uab.cat

Administration contact:

Exchange office
Phone: +34 93 728 77 25
Fax: +34 93 728 77 26
Email: intercanvis.eui@uab.cat
Office Open Hours:
Monday to Friday from 10 to 13 hours
Wednesday from 16 to 18 hours

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APPLICATION PROCEDURE FOR ACADEMIC STAYS AT THE UNIVERSITAT AUTONOMA DE BARCELONA AS PART OF AN EXCHANGE PROGRAMME

The UAB has an on-line application form for this purpose, wich will be available at the http://sia.uab.cat website for the following periods:

- From May 1st to June 15th 2009, for students wishing to start their exchange visit in September 2009.

- From November 1st to December 10th 2009, for students wishing to start their exchange visit in February 2010.

VERY IMPORTANT: The application form will only be available for the periods detailed above. After these periods applications will be closed and admision to the UAB as part of the exchange programme will not be possible.

The on-line application forms filled in by students will be analysed in conjunction with the information sent by their home universities. Please note that any application form sent without prior communication from the student's home university will not be considered.

Once we have screened all the application forms received and after having verified them with the information sent by our partner universities, students will receive an e-mail confirming their admission as an exchange student and giving them useful information about their future stay at the UAB.

ARRIVAL AT BARCELONA

1. BY PLANE

The airport is located about 10 km away from Barcelona. There are three different ways to arrive at the city:

    a) By taxi: it costs approximately 25 Euros.

    b) By train (Renfe): there are trains every 30 minutes from 6:13 to 23:13. It runs to the main railway station (Sants - Estació) and to the city centre (Plaça de Catalunya), where you can take the Ferrocarrils de la Generalitat, Renfe and the Metro (underground).

    c) By bus (Aerobus): from Monday to Friday, there are buses every 15 minutes from 6:00 to 24:00, and the weekends and holidays, from 6:30 to 24:00. It runs from the airport to Plaça de Espanya or Plaça de Catalunya, where you can take the Ferrocarrils de la Generalitat or the Metro.

2. BY TRAIN

If you arrive at Barcelona by train, bear in mind that the main station is Sants Estació, where you can take the Renfe – Rodalies or the Metro to go any part of the city.

3. BY BUS

If you travel by bus, there are three different arrival bus stations: Sants, Estació del Nord and Estació del Paral·lel. In any case, check which is the appropriate bus station before leaving.

4. BY CAR

The A-7 motorway will lead you from La Jonquera. If you want to go directly to the other towns closer to the UAB, consult the next section.

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ARRIVAL AT THE UAB

The main campus of the Universitat Autònoma de Barcelona (UAB) is located 20 km away from Barcelona, in Bellaterra (Cerdanyola del Vallès), between the towns of Sabadell and Sant Cugat del Vallès.

The Sabadell Campus of the Universitat Autònoma de Barcelona is located 4 km away from main campus.

1. BY CAR

Main Campus: The easiest way of arriving at the UAB by car is taking a motorway. On the map, you can look up access roads:

a) A-7 motorway: on your way to Tarragona-Lleida take the exit Bellaterra, or if you come from Barcelona on your way to Girona.

b) C-58 motorway: Barcelona – Sabadell - Terrassa (exit Bellaterra)

Sabadell Campus: The easiest way of arriving at the UAB by car is taking a motorway. On the map, you can look up access roads:

c) C-58 motorway: way Barcelona-Sabadell-Terrassa and take the Sabadell Sud; Gran Via and exit to Pont 4.

2. BY TRAIN

Renfe (Spanish Railway Network): there are trains from Barcelona –Stations Sants, Plaça Catalunya, Arc de Triomf and Sant Andreu– to Cerdanyola Universitat (main campus), or Sabadell Centre (Sabadell campus). It runs every thirty minutes and the journey lasts approximately thirty minutes. There is a free of charge shuttle bus service that runs from the station to the Main Campus. To check timetables or fares, you can contact by phone 902 24 02 02, or by Internet http://www.renfe.es

Ferrocarrils de la Generalitat de Catalunya (Catalan Railway Network): take the line S2 (Barcelona / Sabadell line) to arrive at the main campus (Universitat Autònoma Station) or Sabadell campus (Sabadell Rambla). This line stops in Barcelona at Plaça Catalunya, Provença, Gràcia, Muntaner and Sarrià. All trains stop at the UAB. The whole journey lasts approximately thirty-five minutes. There are trains approximately every ten minutes. To check timetables or fares, you can contact by phone 93 205 15 15, or by Internet http://www.fcg.cat

3. BY BUS

The SARBUS Company has got a line from Barcelona (Fabra i Puig) to Cerdanyola. These buses run to Cerdanyola every 30 minutes and to the Main Campus UAB at 7 to 9:30. The journey lasts between 20 and 30 minutes. For any further information you can phone 93 727 92 92. This company also offers services to Sabadell and Terrassa. http://www.sarbus.cat

4. BY TAXI

From the Airport to the UAB (both campus) it costs about 50 €. From the city centre, it costs about 40 €.

International Students Guide – Arrivals

1	Campus de Bellaterra	**4**	Hospital Sant Pau		Estació de RENFE
2	Campus de Sabadell	**5**	Hospital del Mar		Estació dels FGC
3	Hospital Vall d'Hebron	**6**	Hospital Germans Trias i Pujol		Aeroport de Barcelona

International Students Guide – Arrivals

Campus de Sabadell
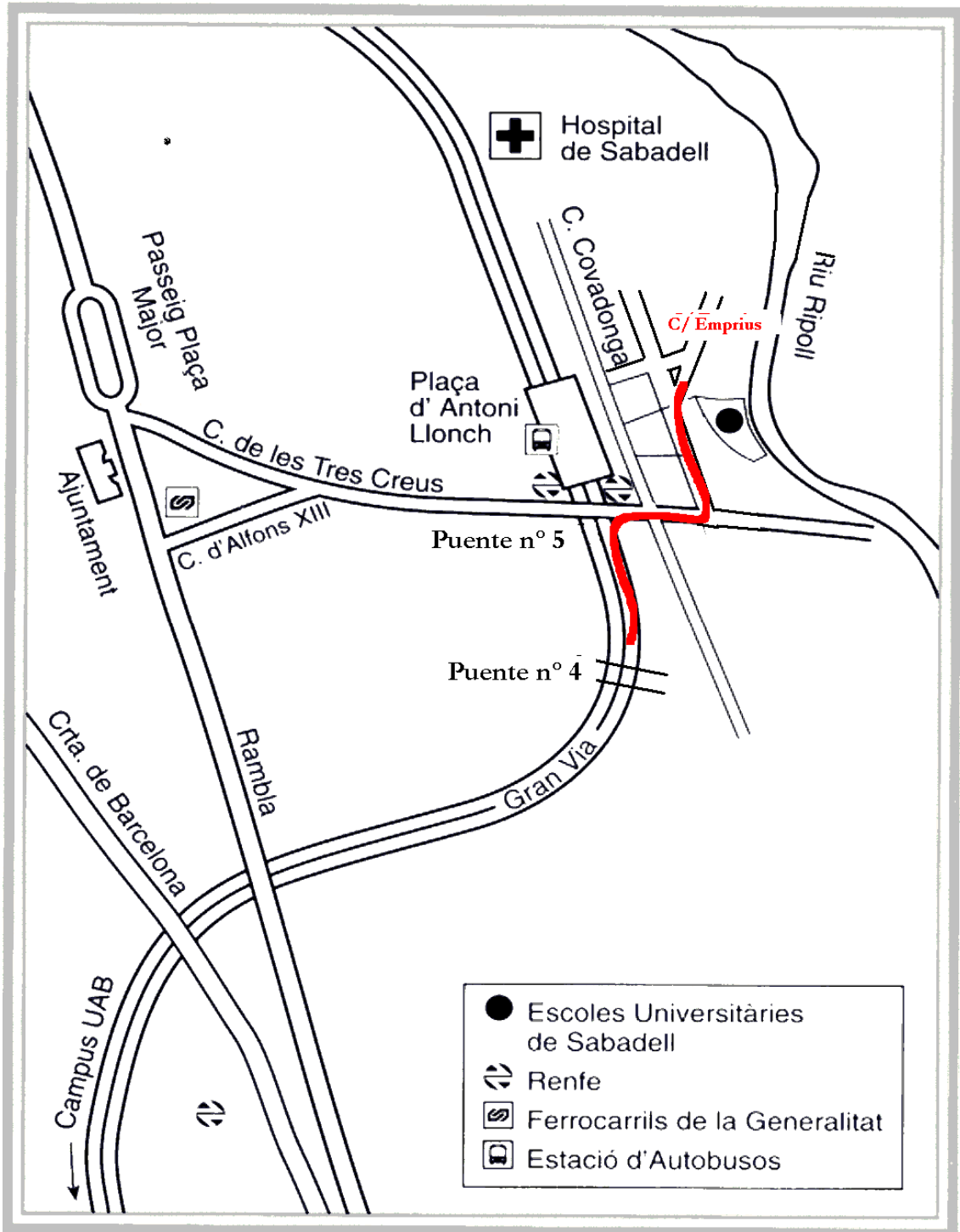
Hospital de Sabadell

C. Covadonga

Riu Ripoll

C/ Emprius

Passeig Plaça Major

Plaça d' Antoni Llonch

C. de les Tres Creus

Ajuntament

C. d'Alfons XIII

Puente n° 5

Puente n° 4

Rambla

Crta. de Barcelona

Gran Via

Campus UAB

● Escoles Universitàries de Sabadell
⇄ Renfe
Ⓢ Ferrocarrils de la Generalitat
🚌 Estació d'Autobusos

International Students Guide – Arrivals

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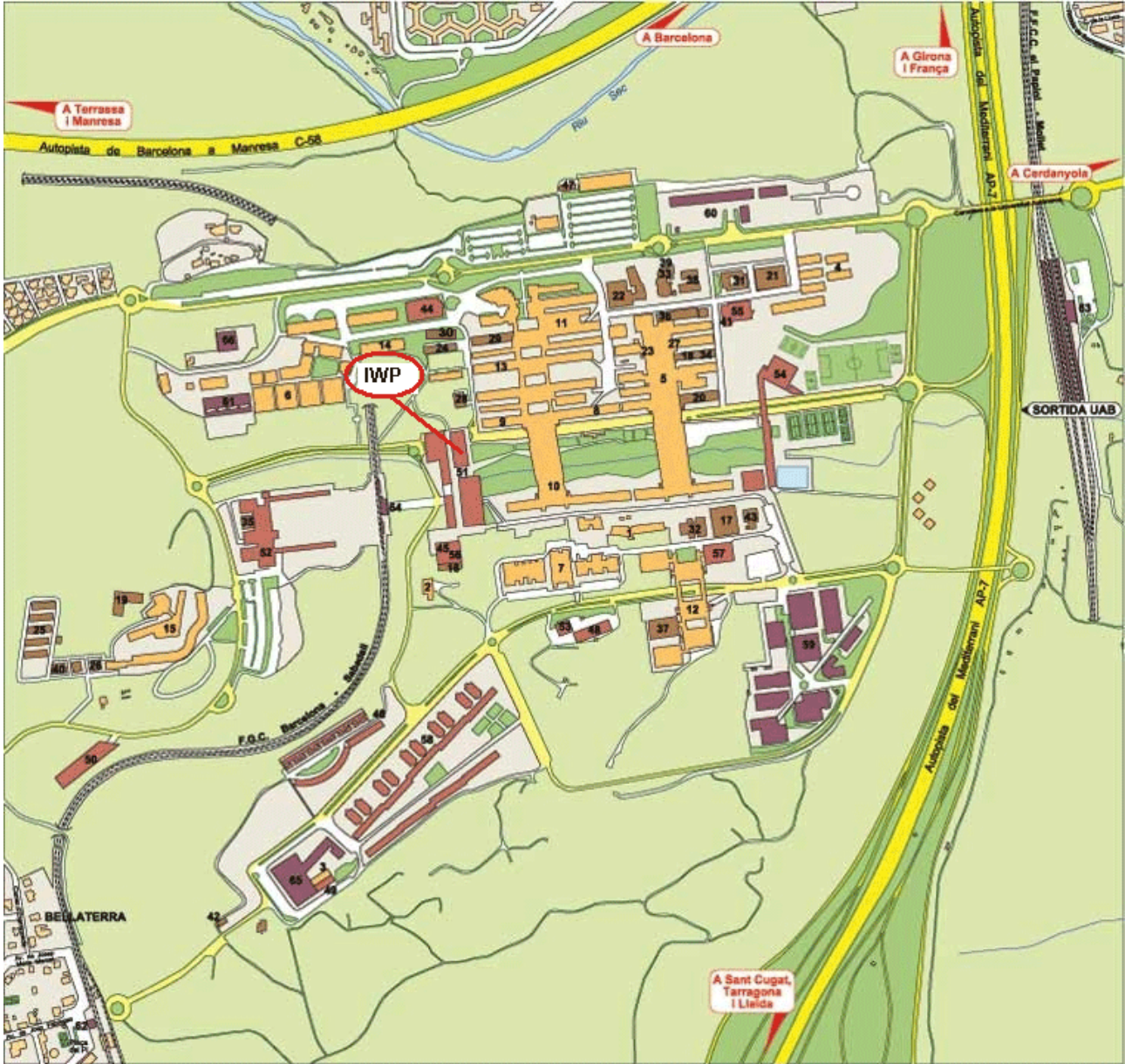
ESCOLES I FACULTATS

1. Aulari General
2. Escola de Postgrau
3. Edifici Blanc
   - Escola de Prevenció i de Seguretat Integral
   - Escola Superior d'Arxivística i Gestió de Documents
   - Escola Universitària de Turisme i Direcció Hotelera
4. Escola Tècnica Superior d'Enginyeria
5. Facultat de Ciències
6. Facultat de Ciències de l'Educació
7. Facultat de Ciències de la Comunicació
8. Facultat de Ciències Econòmiques i Empresarials
9. Facultat de Ciències Polítiques i de Sociologia
10. Facultat de Dret
11. Facultat de Filosofia i Lletres
12. Facultat de Medicina
13. Facultat de Psicologia
14. Facultat de Traducció i Interpretació
15. Facultat de Veterinària

INSTITUTS I CENTRES DE RECERCA

16. Centre d'Estudis Olímpics i de l'Esport (CEOE)
17. Centre de Biotecnologia Animal i de Teràpia Gènica (CBATEG)
18. Centre de Recerca Ecològica i d'Aplicacions Forestals (CREAF)
19. Centre de Recerca en Sanitat Animal (CRESA)
20. Centre de Recerca Matemàtica (CRM)
21. Centre de Visió per Computador (CVC)
22. Centre Nacional de Microelectrònica (CNM)
23. Centre temàtic europeu de territori i medi ambient
24. Edifici E
    - Centre de Documentació Europea
    - Centre d'Estudis Demogràfics
    - Centre d'Estudis Internacionals i Interculturals
    - Institut Universitari d'Estudis Europeus
25. Granges i Camps Experimentals
26. Hospital Clínic Veterinari de la UAB
27. Institut Català de Nanotecnologia
28. Institut d'Anàlisi Econòmica (IAE)
29. Institut d'Estudis Medievals
30. Institut d'Estudis Regionals i Metropolitans de Barcelona
31. Institut d'Investigació en Intel·ligència Artificial (IIIA)
32. Institut de Biotecnologia i de Biomedicina (IBB)

33. Institut de Ciència de Materials de Barcelona (ICMAB)
34. Institut de Ciència i Tecnologia Ambientals (ICTA)
35. Institut de Ciències de l'Educació (ICE)
36. Institut de Física d'Altes Energies (IFAE)
37. Institut de Neurociències
38. Laboratori de Llum de Sincrotó
39. MATGAS, AIE
40. Planta de Tecnologia dels Aliments
41. Port d'Informàtica Científica
42. Servei d'Analísis Arqueològiques
43. Servei d'Estabulari

SERVEIS

44. Biblioteca d'Humanitats
45. Biblioteca de Comunicació i Hemeroteca General
46. Cases Sert
47. Deixalleria del Campus
48. Escola Bressol "Gespa"
49. Fundació UAB (FUAB)
50. Parc Mòbil
51. Plaça Cívica
    - Edifici d'Estudiants
    - Sala de Cinema i Teatre
    - Punt d'Informació
52. Rectorat. Consell Social. Gerència
53. Servei Assistencial de Salut
54. Servei d'Activitat Física (SAF)
55. Servei d'Informàtica
56. Servei de Llengües
57. Treball Campus
58. Vila Universitària

ALTRES LLOCS D'INTERÈS

59. Applus
60. Bombers de la Generalitat de Catalunya
61. Escola de Bellaterra- Col·legi públic
62. Estació de Bellaterra FGC
63. Estació de RENFE Cerdanyola- Universitat
64. Estació Universitat Autònoma FGC
65. Hotel Serhs Campus
66. Institut de Batxillerat "Pere Calders"

EXCHANGE STUDENTS CIRCUIT

1. WHAT TO DO WHEN YOU ARRIVE ON HERE

Once you have arrived on UAB, you must go to the International Welcome Point (IWP) to present your personal details and collect the international student card. IWP is located in the Plaça Cívica (check the map). It is open in the mornings from 10:00 to 13:30, from Monday to Friday. This office offers the following services:

- ✓ **International Student Card**, which will identify you as a UAB student. You must provide two photographs and your passport or your identity card.
- ✓ **Information about the UAB**, Barcelona and Sabadell.
- ✓ **Accommodation.**
- ✓ **Practical information** about life in Barcelona and its surroundings (transport, students advantages ...)
- ✓ **Help** to solve your problems during your stay with us.
- ✓ **Visas.**

How to contact the International Welcome Point (IWP):

International Welcome Point (IWP)
Campus Bellaterra – Plaça Cívica
08193 Bellaterra, Cerdanyola del Vallès, Barcelona
Phone: +34 93 581 22 10
E-mail: international.welcome.point@uab.cat

2. REGISTRATION PROCESS

Next you will be able to register at the Exchange Office in the School of Engineering, at Sabadell Campus (check the map).
This office is open in the mornings from 10:00 to 13:00 from Monday to Friday, and Wednesday from 16:00 to 18:00. Remember that you can present any document showing proof that you have been accepted by our university or any document of your university showing proof that you can participate in an Erasmus student. Notice that you can enrol any subject offered by our school and the rest of the faculties, but you should also be aware that you must enrol at least 50% of your credits in the school of Engineering campus Sabadell.

You must follow these steps to register at School of Engineering campus Sabadell:

1. Go to the Exchange Office in the School of Engineering campus Sabadell with your Learning Agreement signed by your university's coordinator. There you will be given all the information you will need to register. If needed, the School's Exchanges Coordinator will sign all students' arrival certificates.

2. If you have doubts about the courses you are going to take, you must visit the departmental coordinator corresponding to your studies [check page 2-3] to get all the necessary academic information and choose the courses you would like to register for.

3. Check the courses timetables in order to ensure you don't have any time incompatibility.

4. Register at the Exchange Office.

5. Collect a folder, and an agenda.

3. CHANGES TO REGISTRATION

You will have 6 weeks from your arrival to the school to attend lessons to determine the level and group you prefer in order to ensure the validation of your studies in your university, during this period you would be able to make changes to your registration. After this period your registration will be considered definitive.

4. LANGUAGE COURSES

These courses offered by the Servei de Llengües can be recognized as ECTS credits at your university, you must enrol the course directly at the Servei de Llengües and ask them for your certification before leaving (see more information at point 7 of the dossier).

5. WHAT TO DO BEFORE LEAVING

- Ask for your attendance certificate at the Exchange Office one week before leaving because it will take some days that the coordinator will sign it.

- Pick up your signed attendance certificate before leaving.

The Exchange Office will send your transcript of records directly to your university.

THE UAB SERVICES at THE BELLATERRA CAMPUS

1. INFORMATION OFFICE

Its main objective is to provide information about all aspects related to the UAB (studies, academic regulations, organisms, extra academic activities...), and to the university world in general (information about Catalan universities and those from the rest of the country, and foreign universities). It has an Information Point in Plaça Civica to help users with their enquiries.

Telephone: 93 581 11 11
Fax: 93 581 20 00
E-mail: informacio@uab.es
Website http://www.uab.es/servlet/Satellite/life/uab-campus-facilities-1191393590640.html?rendermode=1203663828107%3Fparam1%3D1195026080661%3Fparam1%3D1195026073077%3Fparam1%3D1195026073077
Timetable: Monday to Friday, from 9:30 to 13:30, and from 15:30 to 17:00

2. LIBRARIES

The UAB Library Service gives bibliographical and documental support in the educational activities and of research that are carried out to the Autonomous University of Barcelona. It consists of seven libraries in the campus of Bellaterra, one in the campus of Sabadell and four at the educational units in agreement with the hospitals. Member of the Consortium of University Libraries is from Catalonia (CBUC) and from the Red de Bibliotecas Universitarias (REBIUN)

Website http://www.uab.cat/servlet/Satellite/Libraries-1096479796356.html

3. HEALTH WELFARE SERVICE

A Healthcare Service (*Servei Assistencial de Salut* - SAS) on the campus offers a range of health services to the whole university community. Furthermore, various groups organise a range of health programmes promoting healthy lifestyles.

The Health Centre is open from 9:30 to 13:00 and from 15:00 to 20:00, from Monday to Friday.
Telephone: 93 581 18 00
E-mail: servei.salut@uab.es

Website: http://www.uab.es/servlet/Satellite/life/health-and-prevention-1101231886093.html?rendermode=1203663828107%3Fparam1%3D1195026080661%3Fparam1%3D1195026073077%3Fparam1%3D1195026073077

4. SPORTS AND PHYSICAL ACTIVITY SERVICE (SAF)

The UAB has a large array of sporting amenities, regarded as one of the most comprehensive university facilities in Barcelona. These facilities, which are run by the Sport and Physical Activity Service (SAF), consist of the following: a covered sports hall, three saunas, a football pitch and five-a-side pitch with artificial grass, two heated indoor swimming pools and solarium, five tennis courts, fronton court, five squash courts, two paddle-tennis courts, outdoor and indoor rock-climbing walls, physical fitness room and three activity rooms.

Find out more: SAF-Servei d'Activitat Física

International Students Guide – UAB Services

5. POST OFFICE

The Post Office is at the Faculty of Economics and Business Studies.
Opening hours:
      Monday-Friday: 8:30am-2:30pm
      Saturday: 9:30am-1pm
      Sunday: closed
Tel: 93 581 14 06

6. CULTURA EN VIU

Cultura en Viu (*Live Culture*) is the cultural support and promotion programme run by the UAB's Arts Centre. Its aim is to generate and promote artistic activities on an inter-faculty basis, making them available to all the members of the university community. It also acts as a cultural information point on campus, offering details of all the cultural events taking place at the university and information on how to organise your own. The UAB's regular cultural groups bring together students, teachers and Service and Administration Personnel with similar cultural interests. There are currently eight different organisations working in artistic areas such as drama, the plastic arts, music, literature, the moving image and popular culture:

-Dance Workshop
-Music Workshop: Choir, Orchestra and Modern Music Combos
-Theatre Workshop
-Image Centre
-Fritz Lang Cineclub
-Colla Castellera Ganàpies
-Espai B5-125 de Arte
-Quark poetry

Some of the activities organised by these established cultural groups are recognised by the UAB as elective credits.
Find out more:
Arts Centre - Cultura en Viu

7. BANKS

Bank Santander Central Hispano
There is a bank at the Graduate School of Engineering.
Tel: 93 580 51 72

Caixa d'Estalvis i Pensions de Barcelona "la Caixa"
There is a bank at the Rectorate building.
Cash machines are available at the Faculty of Science, the Faculty of Economics and Business Studies, the Vila Universitària and the Plaça Cívica.
Tel: 93 581 11 51

Caixa de Catalunya
There is a bank at the Plaça Cívica
Cash machines are available at the Faculty of Translation and Interpreting and the Vila Universitària.
Tel: 93 580 02 19

THE UAB SERVICES at THE SABADELL CAMPUS

The building will be closed for the first two weeks of August

1. LOGISTICAL SUPPORT AND INFORMATION POINT

Telephone: 93 728 77 00
E-mail address: slipi.sabadell@uab.cat
Location: opposite the main entrance
Timetable: Monday to Friday, from 8.00 a.m. to 9.00 p.m., except in July (8.00 a.m. to 8.00 p.m.) and August (third week: 8.00 a.m. to 2.00 p.m.; last week: 8.00 a.m. to 8.00 p.m.)

Please enquire within in any of the following cases:
- ✓ Emergency.
- ✓ For general information
- ✓ For information on the whereabouts and timetables of lecture rooms, offices and services.
- ✓ For information about the academic calendar.
- ✓ For information about the activities at the School and the other UAB centres.
- ✓ In the event of damage or malfunction of installations or fixtures and fittings.
- ✓ Left luggage and lost property service
- ✓ Pharmacy service.
- ✓ Submitting of student files
- ✓ School access control.
- ✓ Control of notice boards and posters that can be put up (with prior authorisation).
- ✓ Problems with vending machines.

2. LIBRARY

The Sabadell University Library was opened in October 1993, as a result of the merging of the Sabadell University Business School and Computer Science School libraries, which had been created in 1979 and 1988 respectively.

Telephone: 93 728 77 01
E-mail address: bib.sabadell@uab.es
Website (catalan): http://www.uab.cat/servlet/Satellite/campus-de-sabadell/biblioteca-1179901818793.html
Location: ground floor entry
Opening hours: Monday to Friday, from 8.30 a.m. to 8.45 p.m.
- ✓ Closed for Easter week and Christmas.
- ✓ July: from 8.30 a.m. to 7.45 p.m.
- ✓ August: Third week, from 9.00 a.m. to 1.45 p.m.; Fourth week: from 9.00 a.m. to 7.45 p.m.

3. SID: INFORMATICS SERVICE

The Informatics Service is responsible for the technical management of computing resources, giving support to teaching, research and administrative staff on the Sabadell Campus, together with all associated services.

Telephone: 93 728 77 22
E-mail address: sid.sabadell@uab.es
Location: first floor
Opening hours: Monday to Friday, from 8.30 a.m. to 9.00 p.m.
- ✓ July: first three weeks, from 8.30 a.m. to 9.30 p.m. and final week, 8.30 a.m. to 1.30 p.m.
- ✓ August: Third week, from 8.30 a.m. to 1.30 p.m. and final week, 8.30 a.m. to 8.30 p.m.

4. PHOTOCOPYING SERVICE

E-mail: s.rep.sabadell@uab.cat
Telephone: 93 728 77 65
Fax: 93 728 77 26
Location: Mezzanine
Opening hours: Monday to Friday, from 9.00 a.m. to 2.00 p.m., and from 3.00 p.m. to 8.00 p.m. From July 1st to 17th, opening hours are from 9.00 a.m. to 6.00 p.m., and from July 19th to the 31st, from to 8.00 a.m. to 2.00 p.m. Closed in August. During the Christmas and Easter holidays the opening hours are from 8.00 a.m. to 2.00 p.m.

The centre has a photocopying service for reproduction, and copies can also be made of timetables, exams and practical work that the School and lecturers make available to you.

5. OTHER SERVICES

- ✓ A study room open to all, to be found on the ground floor next to the lift.

- ✓ "Carpa-bar" self-service-restaurant with open-air terrace. Any complaint, improvement suggestion, etc, arising as users of this service, can be made either to the Administration of the Centre or to the School Management.

LANGUAGE COURSES

UAB LANGUAGE: SERVEI DE LLENGÜES

http://www.uab.cat/servei-llengues
Telephone: 93 581 1325
Fax: 93 581 2736
E-mail: s.llengues.info@uab.cat

UAB Language Service is a support service for the university community that also aims to promote culture at the UAB. Its objective are to teach, improve and promote Spanish and Catalan, as well as foreign languages, in order to ensure that all alnguages users area ble to reach an adequate level of kwoledge and competence in these languages, in accordances with their individual needs.

The UAB Language Service offers foreign students the possibility of taking Catalan and Spanish courses.
The catalan courses are 100% subsidized by the UAB and the Spanish courses are 50% subsidized by the UAB for the Erasmus students.

CATALAN COURSES

BEFORE BECOMING TO THE UAB

Learn Catalan on-line with Speakc@t http://www.intercat.cat/speakcat/, a free and personalised course that will enable you to learn basic Catalan grammar and vocabulary, help you to understand the language and encourage you to speak to us in Catalan. You will also find a series of electronic resources to help you learn about the Catalan language and culture.

AT THE UAB

BASIC COMPREHENSION COURSE

For those with a knowledge of at least one Romance language (Spanish,French, Italian, Portuguese, Romanian, etc.). This course will help you to understand written texts in Catalan and to start understanding lecturers and colleagues when they speak to you in this language.

- 23 hours
- 1,5 elective credits
- 100% subsidized by the UAB

BASIC LEVEL COURSE (LEVEL ONE)

For those who want to start working on comprehension, expression and interaction in Catalan. This course corresponds to Level A2 of the Council of Europe.

- 90 hours
- 6 elective credits
- Official qualification
- 100% subsidized by the UAB

ELEMENTARY LEVEL COURSE (LEVEL TWO)

An elementary-level course (level two) is also offered to all those students who can provide proof that they have successfully completed the basic level (level one) or its equivalent. This course corresponds to Level B1 of the Council of Europe.

- 90 hours
- 6 elective credits
- Official qualification
- 100% subsidized by the UAB

Catalan courses calendar:

First semester

COURSE NAME AND DESCRIPTION	COURSE INFORMATION AND LEVEL TEST	CLASS CALENDAR	EXÀMS	PRICE	
BASIC COMPREHENSION[1]					
Intensive: 2 hours a day, 30 hours (14 h classroom) (1 ECTS credit)	1 to 4.09.2009 11am to 1pm 3pm to 5pm	07.09.2009 to 16.09.2009, Monday to Thursday 21.09.2009 to 01.10.2009, Monday to Thursday 19.10.2009 al 28.10.2009, Monday to Thursday 02.11.2009 to 12.11.2009, Monday to Thursday	17.09.2009 02.10.2009 29.10.2009 13.11.2009	UAB students: free* Non-UAB: € 162.76	
BÀSIC (LEVEL ONE) / ELEMENTARY (LEVEL TWO)[2]					
Intensive: 4 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	1 to 4.09.2009 11am to 1pm 3pm to 5pm	07.09.2009 to 05.10.2009, Monday to Friday	06 and 07.10.2009[3]	UAB students: free* Non-UAB: € 627.24	
Semi-intensive: 2 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	13 to 16.10.2009 11am to 1pm 3pm to 5pm	19.10.2009 to 12.01.2010, Monday to Thursday	13 and 14.01.2010[4]	UAB students: free* Non-UAB: € 627.24	

- Enrolment for courses takes place after the corresponding information has been obtained and you have taken a level test, if necessary. You cannot enrol by e-mail.
- The Language Service reserves the right to cancel courses that do not satisfy the minimum number of enrolments.

* Newly arrived students have the right to 100% subsidy of the cost of the Basic Comprehension, Basic (L1) and Elementary (L2). These courses are free as long as the Language Service can confirm that the student is registered at the UAB.
Exchange students can also receive linguistic support from a Catalan UAB student to help them understand the classes and/or practice their Catalan through the Language Volunteer programme.

On passing the exam students can obtain free elective credits for the course. For the Basic and Elementary levels a pass in the exam gives the right to an official certificate (CIFOLC).

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[1] Initial comprehension course for students with a good knowledge of at least one other romance language.
[2] Possibility of access to intermediate level course (level three).
[3] CIFOLC exam (Basic and Elementary), officially recognised.
[4] CIFOLC exam (Basic and Elementary), officially recognised.

International Students Guide – Language courses

Second semester

COURSE NAME AND DESCRIPTION	COURSE INFORMATION AND LEVEL TEST	CLASS CALENDAR	EXÀMS	PRICE
BASIC COMPREHENSION[1]				
Intensive: 2 hours a day, 30 hours (14 h classroom) (1 ECTS credit)	15 to 18.01.2010 11am to 1pm 3pm to 5pm	19.01.2010 to 28.01.2010, Monday to Thursday 02.02.2010 a l'11.02.2010, Monday to Thursday 15.02.2010 to 24.02.2010, Monday to Thursday 01.03.2010 to 10.03.2010, Monday to Thursday 15.03.2010 to 24.03.2010, Monday to Thursday	29.01.2010 12.02.2010 25.02.2010 11.03.2010 25.03.2010	UAB students: free* Non-UAB: € 162.76
BÀSIC (LEVEL ONE) / ELEMENTARY (LEVEL TWO)[2]				
Intensive: 4 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	19 to 20.01.2010 11am to 1pm 3pm to 5pm	21.01.2010 to 16.02.2010, Monday to Friday	17 and 18.02.2010[3]	UAB students: free* Non-UAB: € 627.24
Semi-intensive: 2 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	10 to 12.03.2010 11am to 1pm 3pm to 5pm	15.03.2010 to 27.05.2010, Monday to Thursday	28 and 31.05.2010[4]	UAB students: free* Non-UAB: € 627.24

- Enrolment for courses takes place after the corresponding information has been obtained and you have taken a level test, if necessary. You cannot enrol by e-mail.
- The Language Service reserves the right to cancel courses that do not satisfy the minimum number of enrolments.

* **Newly arrived students have the right to 100% subsidy** of the cost of the Basic Comprehension, Basic (L1) and Elementary (L2). These courses are free as long as the Language Service can confirm that the student is registered at the UAB.
Exchange students can also receive linguistic support from a Catalan UAB student to help them understand the classes and/or practice their Catalan through the Language Volunteer programme.

On passing the exam students can obtain free elective credits for the course. For the Basic and Elementary levels a pass in the exam gives the right to an official certificate (CIFOLC).

[1] Initial comprehension course for students with a good knowledge of at least one other romance language.
[2] Possibility of access to intermediate level course (level three).
[3] CIFOLC exam (Basic and Elementary), officially recognised.
[4] CIFOLC exam (Basic and Elementary), officially recognised.

SPANISH COURSES

Students on the LLP-Erasmus programme are entitled to one Spanish course per year for a reduced fee (50%). We recommend beginners or near beginners to take an intensive course (in September or February) before starting their university courses. Pupils with previous knowledge of the language will be given a level test before starting the course. We regret that it is not possible to pre-enrol by mail for these courses. Please check the website or visit us for further information about dates, fees, etc.
As with Catalan Courses, the UAB Language Service reserves the right to cancel groups with fewer than 10 pupils enrolled.

Language and cultural reception programme for mobility students.

As a complement to the Catalan Courses, we also offer the possibility of receiving, through the language and cultural reception programme for mobility students, linguistic and cultural support from a Catalan student volunteer, as well as the opportunity to participate in social activities such as outings to different parts of Catalonia, a Welcome Party, etc.
Further information on the Ajuda'm Programme web site: http://www.uab.cat/ajudalinguistica

International Students Guide – Language courses

First semester

COURSE NAME AND DESCRIPTION	COURSE INFORMATION AND LEVEL TEST	CLASS CALENDAR	EXÀMS	PRICE
Intensive: 4 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	2 to 7.09.2009 11am to 4pm	09.09.2009 to 07.10.2009, Monday to Friday	08, 09, 13 and 14 October 2009	UAB Students: €527.70 Non-UAB: €627.24
Semi-Intensive: 2 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	19 to 22.10.2009 11am to 4pm	26.10.2009 to 21.01.2010, Monday to Thursday	22, 25, 26 and 27 January 2010	UAB Students: € 527.70 Non-UAB: €627.24

- LLP-Erasmus students have the right to a 50% discount on the enrolment price for one academic year. To obtain this subsidy you should present the documentation accrediting your participation in the LLP-Erasmus programme issued by the International Welcome Point.
- Students with a poor command of the language must take an intensive course prior to the beginning of classes at the university (September or February).
- Student with some command of the language must take a free level test. The dates and times are indicated above and these days are also useful for receiving information. It is not possible to enrol in advance by e-mail for these courses.
- The Language Service reserves the right to cancel courses that do not satisfy the minimum number of enrolments.

Second semester

COURSE NAME AND DESCRIPTION	COURSE INFORMATION AND LEVEL TEST	CLASS CALENDAR	EXÀMS	PRICE
Intensive: 4 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	2 to 4.02.2010 11am to 4pm	08.02.2010 to 04.03.2010, Monday to Friday	05, 08 and 09 March 2010	UAB Students: €527.70 Non-UAB: €627.24
Semi-Intensive: 2 hours a day, 150 hours (78 h classroom) (6 ECTS credits)	15 to 18.03.2010 11am to 4pm	22.03.2010 to 07.06.2010, Monday to Thursday	08, 09, 10 and 11 June 2010	UAB Students: € 527.70 Non-UAB: €627.24

- LLP-Erasmus students have the right to a 50% discount on the enrolment price for one academic year. To obtain this subsidy you should present the documentation accrediting your participation in the LLP-Erasmus programme issued by the International Welcome Point.
- Students with a poor command of the language must take an intensive course prior to the beginning of classes at the university (September or February).
- Student with some command of the language must take a free level test. The dates and times are indicated above and these days are also useful for receiving information. It is not possible to enrol in advance by e-mail for these courses.
- The Language Service reserves the right to cancel courses that do not satisfy the minimum number of enrolments.

ACCOMMODATION

INSIDE THE CAMPUS

UNIVERSITY VILLAGE

Our campus provides many facilities and services for housing our students. The University Village (Vila Universitària) is strategically located, offering comfortable accommodation for students or members of faculty who come from outside the area. The 640 residential units vary in size, providing accommodation for a total of 1,806 people with a wide variety of available services and benefits.

It is a real on-campus city, with parks, leisure areas and all the basic services that residents require (laundry, bakery, supermarket, etc.) and regular road and rail connections with Barcelona, Sabadell, Cerdanyola del Vallès and Sant Cugat del Vallès.

The Village provides residential units to suit all requirements, designed to offer both comfortable living conditions as well as the best possible environment for study.

More information: www.vilauniversitaria.com

OUTSIDE THE CAMPUS

The UAB can also help you if you are seeking accommodation outside the campus. There are some ways of looking for accommodation through us:
- Barcelona Centre Universitari (housing service)
- Barcelona Housing Service for Students
- Borsa d'habitatge
- NoticeBoard
- Viure i conviure programme

ACADEMIC CALENDAR 2009 – 2010

Winter semester

Lectures: September 21 2009 - January 15 2010
Pre-exams Week: January 18 - 22 2010
Exams: January 25 - February 5 2010

Spring semester

Lectures: February 15 – June 11 2010
Exams: June 14 – July 23 2010

Holiday:

Year 2009

6th September Local holiday Sabadell
11th September Catalonian National Day
12th October Hispanic Day
1st November All Saints
6th November Local holiday at the Engineering School
6th December Constitution Day
7th December holiday
8th December Immaculate Conception
25th December Christmas Day
26th December St Stephen's Day
From 23th December to January 8th Christmas holiday

Year 2010

1st January New Year's Day
6th January Epiphany
2th April Good Friday
5th April Easter Monday
From 29th March to April 5th Eastern holiday
1st May Labour Day
11th May holiday
24th May Whitsun
24th June St John's Day

TIMETABLES OF COURSES
http://www.uab.cat/servlet/Satellite/informacio-academica-1096483335546.html

> # VERY IMPORTANT:
> # All courses are offered in Catalan and/or Spanish

PERIOD: WHOLE YEAR

26987 - Calculus

Timetable: mornings or afternoons   UAB credits: 10.5   ECTS credits: 8

The aims are, on the one hand, to promote the most basic concepts of calculus, i.e.: real numbers, functions, continuity and derivation. The students are also taught the main applications and techniques of calculus. At the same time, the aim is to teach students the fundamental concepts of integrals and series, as well as ensuring that they master the basic techniques of integral and series calculus, and acquire a command of their applications.

26994 – Business Economics I

Timetable: afternoons   UAB credits: 10.5   ECTS credits: 8

The aim is to gain an understanding of the nature of companies and of the economic system in which they operate; knowledge, understanding and application of the different techniques and criteria used, both in the area of the company's production subsystem and in that of company investment and financing.

27023 – Computer Structure

Timetable: mornings or afternoons   UAB credits: 10.5   ECTS credits: 8

The aim is to analyse the functioning principles of a single-processor computer system. To study each of the basic modules that makes up a Von Neumann-type computer. To study data transfer between the different modules of an I.T. system and with the outside.

27024 – Basic Physical Characteristics of I.T.

Timetable: mornings or afternoons   UAB credits: 12   ECTS credits: 9

The aims are: to present the different magnitudes and different electrical components. To introduce the concepts and methods of circuit analysis needed for determining DC signal and time dependant signal circuits (transitory state and steady sinusoidal state). To initiate the study of electronics through presentation of the semi-conducting diode. To study the operational amplifier (as an element of a circuit), and its linear and non-linear applications. To introduce data acquisition systems. To present bipolar and MOS transistors, and to study their applications in basic digital circuits (CMOS ports, RAM memory, ROM, EEPROM, etc.).

26989 – Introduction to Technical English

Timetable: mornings or afternoons   UAB credits: 9   ECTS credits: 7

A lower-intermediate level of English is a prerequisite for taking this subject. The aim of the course is the reading and comprehension of scientific texts in English related to I.T., and the study and acquiring of grammatical structures and the rhetorical functions characteristic of scientific and technical parlance.

International Students Guide – Description of Informatics Computer Science Courses

26986 – Programming Methodology and Technology I
Timetable: mornings or afternoons   UAB credits: 12   ECTS credits: 9

The aim consists of presenting the basic aspects of digital computer programming, understood as a set of techniques that allow computer programmes to be written correctly and efficiently. Introduction to the basic concepts of programming (algorithms, data structures, programs and languages), with special reference to concepts of correction, efficiency, generality and portability. Basic control structures are studied, together with the call for procedures and functions, handling of dynamic information and basic data structures with applications to specific problems.

27001 / 27026 – Project
Timetable: to be arranged   UAB credits: 9   ECTS credits: 7

The aim is to carry out an individual end of studies project that allows the student to apply and integrate the knowledge acquired in the remainder of the course subjects. He or she should get in touch with the course lecturer in charge of exchanges.

26993 – Operating Systems
Timetable: mornings or afternoons   UAB credits: 12   ECTS credits: 9

The aim is to introduce the student to operating systems at a general level. The main concepts of operating systems are also studied: multi-programming, processes, threads, how processes/threads are executed (CPU admin.), how information on resources is shared (concurrences), and the rest of the different parts that make up the OS – memory control, virtual memory, input/output, filing system, security and a brief introduction to distributed OSs.

From the point of view of practical work, the student carries out four projects about Unix from two different viewpoints: on a user level (shell script), on a programming level (processes), communication by messages (Unix) and concurrence control by semaphore/shared memory (Unix).

26988 – Business Management and Organisation Techniques
Timetable: mornings or afternoons   UAB credits: 12   ECTS credits: 9

The aim is to study company economic-financial relations, accounting principles, assessment standards and the producing of annual synthesis accounts representative of the basic accounting process. Introduction to the field of internal company management, through the study of different types of costs and systems for accumulating these.

27009 - Automat and Formal Language Theory
Timetable: mornings or afternoons   UAB credits: 9   ECTS credits: 9

The aims are to set out the general properties of functions that computers can calculate; to classify problems according to their difficulty; to see that there are problems that are not decidable; to introduce the spatial and temporal complexity of decidable problems.

PERIOD: WINTER SEMESTER

21279 – Algebra

Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The most fundamental concepts of linear algebra. Study is mainly concerned with the basic techniques of dot matrix calculation and its applications.

21313 – Expansion of Business Management and Organisation Techniques

Timetable: afternoons   UAB credits: 6   ECTS credits: 4,5

Assuming from the outset that the student is familiar with basic company accounting, how to draw up the main synthesis account states, types of cost and imputation criteria and systems; the aim here is to study the different operations related to a company's economic and financial structure and to expand knowledge of cost accounting.

21318 – Economic Analysis

Timetable: afternoons   UAB credits: 6   ECTS credits: 4,5

The basic aim is to give the student an elementary understanding of the field of economic theory known as Macroeconomics. The intention is not to undertake a rigorous, in-depth analysis of the wide range of topics and questions included in this area, but rather the goal aimed at is to provide a wide-ranging and general instruction that can be of use to the student both on a professional and personal level.

21288 – Databases

Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aims are to learn how databases, mainly relational ones, are constructed, and what mechanisms are used to handle data, what theoretical models they present and their implementation in commercial packages.

21325 – Automatic Control

Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

An introduction to the world of automatically controlled systems: getting a determined system to function according to determined specifications. This problem is approached from two perspectives: process regulation and industrial automation. Process regulation involves computer control of a process, while industrial automation is carried out using the programming and operation of PLCs (programmable logic controllers). This course involves work programming PLC, and consolidation of fundamental aspects of regulation, which are subsequently applied in the Industrial I.T. course.

21317 – General Economics

Timetable: afternoons   UAB credits: 6   ECTS credits: 4,5

The basic aim is to provide the student with elementary knowledge regarding economic theory. Rather than undertaking a rigorous in-depth study of the wide range of topics and questions that make up economic science, the goal aimed at here is to provide a broad ranging and general instruction that can be of use to the student both on a professional and a personal level.

International Students Guide – Description of Informatics Computer Science Courses

21290 – Software Engineering I

Timetable: mornings or afternoons UAB credits: 6 ECTS credits: 4,5

The first objective is to provide an overall and ordered view of the process of software development, and not simply that of programming, which is but a phase within the total process of software engineering. The programme focuses on the two initial stages of the software lifecycle: analysis and design. For each of these two major parts of the course we shall see two methodologies: structured and object orientated. The central and most important part of the course will be devoted to methodology directed towards objects, and more specifically, to UML as a modelling language, and RUP as a development paradigm. All of this will be complemented by practical cases using the Rational Rose tool.

The aim is to ensure that the student is capable of using these methodologies to carry out the analysis and design of real problems that will allow him or her to tackle software creation in a rigorous manner.

27002 – Statistics II

Timetable: afternoons UAB credits: 4.5 ECTS credits: 3,5

The aim is to gain a deeper understanding of statistical methods acquired in the Probability and Statistics course. Special emphasis is placed on the use of statistics for collecting data, handling it and obtaining a complete interpretation of the results obtained.

21293 – Computer Basics

Timetable: mornings or afternoons UAB credits: 6 ECTS credits: 4,5

The initial aim is to familiarise students with the fundamental aspects of digital computers, their structure and the units of which they are made up. The second aim is to ensure that students can produce programs in the machine language, i.e. the assembling language.

21332 – Introduction to Computer Architecture

Timetable: mornings UAB credits: 6 ECTS credits: 4,5

The improvements to the basic computer structure are set out: Cache memory. Segmented processing. Super-scale processors. Parallel processing.

28331- Project Methodology and Management

Timetable: mornings or afternoons UAB credits: 4.5 ECTS credits: 3,5

There is a dual aim, although both aspects are interrelated. On the one hand, the aim is to instruct students in basic project management techniques, with a clear leaning towards projects that are technical in nature, and in particular I.T. On the other hand, the idea is that a part of these concepts should form a guiding framework for the development of the student's individual end of studies project.

N.B.: to take maximum advantage of the work required by this course, it is considered essential that the student should take it simultaneously with the project.

21307 – Programming Methodology and Technology II

Timetable: mornings or afternoons UAB credits: 6 ECTS credits: 4,5

The aim is to provide students with the necessary know-how to be able to tackle problems of a greater complexity by adopting techniques that allow them to analyse a program (correction, cost, etc.), and to design new solutions based on the idea of resourcefulness or algorithm design techniques.

International Students Guide – Description of Informatics Computer Science Courses

27013 – Production Planning
Timetable: mornings or afternoons   UAB credits: 4.5   ECTS credits: 3,5

This subject sets out a methodology for tackling logistical problems that tend to appear both in manufacturing industry production processes and in transport and service systems. In today's industry, it is of the utmost importance to put into effect and co-ordinate the different resources involved in the production process. The course examines the possibilities offered by digital simulation environments for improving production management. The course focuses on the use of experimental techniques based on simulation directed towards discrete events, in order to analyse and forecast the behaviour of systems under different production management policies.

21303 – Signals and Systems
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

This course sets out to present the basic elements regarding the theory of signals and systems. Signals and systems are present in the baggage of any engineering, as a language housing the different fields of specific application: automation, communication systems, signal processing, etc. The subject focuses on practical aspects, giving priority to the application of different concepts involved in (1) the depiction of a system as an element capable of describing the functioning and behaviour of a system, and (2) the analysis of the frequency of a signal which is present in the majority of present day technologies.

Armed with this knowledge, the student is in a position to embark upon studies in more specific areas within computer engineering, which, in one way or another, make use of the signals and systems here presented.

21301 - Digital Systems I
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aims are:

- Switching algebra: functions of switching. Minimising of functions. Karnaugh maps. Minimising using Karnaugh maos. Other minimising methods.
- Creation of combinational circuits: logical ports. Universal sets. Analysis and synthesis of combinational circuits. Combinational modules: multiplexor, demultiplexor, coders, decoders, programmable matrixes (PLA, PAL).
- Creation of synchronous sequential circuits: memory elements. Time diagrams. Analysis and synthesis of sequential circuits. Status diagrams and tables. Finite state machines. State minimising and assigning. Decomposition of synchronous sequential circuits.
- Synchronous sequential modules. registers, movement registers. Meters, sequence generators.
- Monostable elements. Programmable sequential matrixes. Memories (ROM, RAM).
- Creating of asynchronous sequential circuits: time, run and random diagrams. State diagrams and tables. State reduction. Assigning of states.

21302 - Expert Systems
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to provide an overview of classical artificial intelligence techniques. The problem of representation of knowledge and reasoning is presented, using the formalisms of predicate logic; this is carried out using a logical programming language such as Prolog, and with application to systems based on rules constructed in specialised software. Some research algorithms are studied for solving general decision-making problems, such as board games, and the modification of these algorithms to introduce heuristics. To study these algorithms, a symbolic programming language such as LISP will be looked at.

21306 – Computer Graphics
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to study basic aspects of computer graphics, from aspects of graphical devices to modelling and displaying both two and three-dimensional scenes. The teaching method, both in the part covering theory and course problems, is based on the giving of master classes using transparencies. The student can obtain photocopies of these transparencies prior to the class. With respect to practical work, classes will be given in closed laboratory session in a computer room, overseen by the lecturer.

21309 – Computer Networks
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

Taking into account the fact that the majority of students are new to the subject, and that it may possibly be the only subject where students deal with these topics, it is a self-contained subject whose aim is to provide students with an overview of all the topics related to data transmission and computer networks. An introduction to data transmission will be followed by a general description of the concepts related to computer networks, locating them in a hierarchical protocol model. This will be followed by a description of wide area networks and local area networks, the different types and the way they operate. Finally, students are presented with the problem of network interconnection. The aim of the course will be to produce professionals capable of joining the employment market, armed with skills that, while basic, are enough to enable them to update their know-how in this field with the minimum of effort.

PERIOD: SPRING SEMESTER

21294 – Introduction To Discrete Mathematics
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

Combinatory: a revision of elementary enumerative formulae and some of their most well-known applications, all in accordance with the two key factors: repetition and order; presenting and practicing combinatory calculus using generating functions; introducing the formulation and solving of recurrent linear equations.

Arithmetic: deducing the main results in whole number arithmetic; using them in practice, in the simplification of calculations and diverse operations; presenting two principal applications in the world of communications: error correcting codes and cryptographic methods.

21300 – Statistics I
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to introduce the ideas and basic tools of statistical probability calculus. Probability calculus is essential for the use and manipulation of random models, while statistics allows large sets of data to be analysed.

21292 – Data Structures
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to understand data in a context of objects, and using the C++ language as an element that permits both types of knowledge (data objects and structure) to be expressed.

21295 – Graphs and Complexity
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to develop a set of optimising methods and techniques (resources, time or operations) based on graphs that may be useful in any type of project or planning where factors like economic cost, security, reliability or competitiveness are involved.

21296 – Operational Research I
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The subject falls within the Area of Quantitative Techniques of Company Management, and its aim is to instruct students in the modelling of real management systems, and to familiarise them with some optimising techniques based on mathematical programming in order to resolve these models.

21282 –Expansion of Computer Networks
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim is to deepen understanding of the concepts developed in the Networks course, with a special attention to the set of protocols that are used by the Internet network. Specific objectives that can be highlighted are:

- Understanding the different mechanisms and protocols used for controlling at data link level.
- Understanding the questions and protocols related to the interconnection of heterogeneous networks.
- Understanding the questions and protocols related to the joint operation of heterogeneous systems on a set of interconnected networks.
- Understanding and applying the main models and tools used in the development of applications distributed on the Internet.

International Students Guide – Description of Informatics Computer Science Courses

27012 – Technical English
Timetable: mornings   UAB credits: 4.5   ECTS credits: 3,5

The aim is to gain a deeper understanding of the reading techniques for I.T. texts, with special emphasis on technical translation.

27017 – Technical English to Computer Studies
Timetable: mornings   UAB credits: 4.5   ECTS credits: 3,5

The aim is to gain a deeper understanding of the reading and speech techniques for I.T. texts and conversations, with special emphasis on technical advanced translation.

21289 – Compilers
Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

The course has two objectives. The first is to ensure that students learn the basic compilation techniques, and that they are capable of using these to create a small compiler or interpreter. These techniques will allow students to develop flexible applications that will be able to accept complex data inputs, incorporate list format description languages or other characteristics based on the use of languages. The second aim is ensure that students improve their programming technique by means of an understanding of the functioning of the compilers they are using.

21316 – Business Economics II
Timetable: afternoon   UAB credits: 6   ECTS credits: 4,5

Until recently, information was not considered an important asset in a company. The administrative process was considered to be a personal, face-to-face art, and not a co-ordinated global process over great distances. Today it is widely recognised that it is essential for a company to understand information systems (ISs) because almost every organisation needs them to survive and prosper. The aim of this course is to situate ISs within the framework of company strategy, to underline the importance of ISs in modern organisations and to stress the basic aspects of IS management.

21319 – Quantitative Economics
Timetable: afternoon   UAB credits: 6   ECTS credits: 4,5

The aim is to familiarise students with the minimum tools needed to carry out a thorough empirical analysis of the relationships established between the numerous economic variables in existence. A knowledge of statistics is required.

21291 – Software Engineering II
Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The aim focuses on analysis activities and a part of the design within the framework of the unified development process. The other activities are: codification, testing and management of the configuration; however, also important design aspects like the user interface, design by contract and design exceptions and patterns. And finally, the course focuses two topics about software quality. Our aim is for the course to have a practical focus: teaching useful techniques that are applicable in the "real world", although for reasons of time, practical work must necessarily be limited in its complexity.

And with the same objective, practical work will be carried out with Rational tools, one of the most complete and extensive "suites" currently available.

International Students Guide – Description of Informatics Computer Science Courses

21322 – Operational Research II

Timetable: afternoon   UAB credits: 6   ECTS credits: 4,5

The subject falls within the Area of Quantitative Techniques of Company Management, and its aim is to instruct students in the modelling of company management systems, both industrial and service companies, and to gain an understanding of some techniques for resolving these models, particularly planning and programming systems for a project's production, distribution, resource allocation, organisation and development, using I.T. tools in this resolution.

21308 – Artificial Vision

Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

The main topic is the practical introduction to the tools and algorithms that allow images to be treated by computer. Two basic aims of the course will be: techniques that allow images to be seen better, and techniques that have to be used to extract useful information in fields such as industrial inspection, quality control and robotics. In the laboratory classes students work with a complete vision system designed for an inspection environment.

21336 – Digital Systems II

Timetable: mornings or afternoons   UAB credits: 6   ECTS credits: 4,5

Students must be capable of developing a particular problem from its algorithm to the obtaining of an algorithmic machine that implement it, considering also the final phase of the implementation on a printed circuit board.

21333 – Microprocessors

Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

Starting from a historical view of the evolution of microprocessors, the course focuses on the in-depth study of two classic microprocessors: the i8086 and the MC68000. Both of these serve as central elements from which all the other components that are usually necessary for designing a system based on microprocessors/microcontrollers will be seen to emerge. Characteristics of these components as functional as their electrical qualities will be studied, how they relate to each other, and how they have to be put together to achieve a complete system. The course will place emphasise on the study of commercially available components and on their practical use.

21334 – Peripherals and Device Drivers

Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

The aim of the course is to provide an overview of the most common peripherals in the digital system environment, how they function, how they are controlled and how they are connected to computer equipment.

21324 – Design of Digital Systems

Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

The aim is to make the student capable of designing and implementing a digital electronic application based on the use of high-density programmable logical circuits (FPGAs) as a central core in the development of a custom designed digital system. The course explains the techniques and methodologies that make this possible, i.e.: a description of the most common FPGAs, methodologies of FPGA design, HW description languages (VHDL), digital system implementation technologies and methods of intercommunication between these systems and a PC. Finally a practical application is produced.

21326 - Industrial Computing

Timetable: mornings   UAB credits: 6   ECTS credits: 4,5

Building on knowledge already acquired about automatic control, the need here is to learn the objectives and basic principles of a control system. This course sets out the application of these control algorithms in different industrial processes. If we wish to use a computer to perform this control task, which devices do we need? What considerations do we need to bear in mind when implementing control algorithms in their digital versions? What are the characteristics of an industrial control system and what is the role of computing in this? What problems are there, from a computing point of view, when we consider the integration of a variety of control systems using distributed control systems, industrial communication networks, etc.?

From a practical point of view, a computer is used to carry out the control of a process with real industrial elements; control algorithms are implemented using a specific program such as LabView, and visits are paid to companies linked to the world of industrial automation, with the aim of having direct contact with the elements and solutions that are currently being employed.