



## Curricula presentation & scholars 2006 / 2007

### Basic acquisitions - UNSA

Semester 1	Content	Location	30 ECTS
Module 1.1	Mathematics & physics Rémi Draï – <a href="mailto:Remi.Drai@esa.int">Remi.Drai@esa.int</a> Jean Pierre Laborde - <a href="mailto:laborde@unice.fr">laborde@unice.fr</a> Pavel Tkalic – <a href="mailto:tmspt@nus.edu.sg">tmspt@nus.edu.sg</a> (invited)	UNSA	6 ECTS
Module 1.2	Hydrology & Hydraulics Jean Pierre Laborde – <a href="mailto:laborde@unice.fr">laborde@unice.fr</a> Pavel Tkalic – <a href="mailto:tmspt@nus.edu.sg">tmspt@nus.edu.sg</a> (invited) Yui Liong – <a href="mailto:tmsly@nus.edu.sg">tmsly@nus.edu.sg</a> (invited)	UNSA	6 ECTS
Module 1.3	Introduction to water and aquatic environment management Frack Tessier – <a href="mailto:tessier@unice.fr">tessier@unice.fr</a> Zhou Yuwen – <a href="mailto:zhouyw68@bjut.edu.cn">zhouyw68@bjut.edu.cn</a> & <a href="mailto:zhouyw68@sina.com">zhouyw68@sina.com</a> (invited) Michel Popoff – <a href="mailto:popoff@unice.fr">popoff@unice.fr</a> Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a>	UNSA	6 ECTS
Module 1.4	Computer skills, databases & GIS – ICT Jean Luc Ségapelli – <a href="mailto:jean-luc.segapelli@af3i.com">jean-luc.segapelli@af3i.com</a> Durairaju Kumaran Raju – <a href="mailto:dranju@nus.edu.sg">dranju@nus.edu.sg</a> (invited) Philippe Gourbesville - <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a>	UNSA	6 ECTS
Module 1.5	Web-based collaborative engineering Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a> Wanda Berolo – <a href="mailto:berolo@unice.fr">berolo@unice.fr</a>	UNSA	2 ECTS
Module 1.6	Language skills – Intensive course (UNUT) Nadia Fuchs – <a href="mailto:nadfuchs@numericable.fr">nadfuchs@numericable.fr</a>	UNSA	4 ECTS

### Basic acquisitions - BUTE

Semester 1	Content	Location	30 ECTS
Module 1.1	Mathematics & physics Tamas Szabados - <a href="mailto:szabados@math.bme.hu">szabados@math.bme.hu</a> (Maths) Janos Jozsa - <a href="mailto:jozsa@vit.bme.hu">jozsa@vit.bme.hu</a> (Fluid Mech) Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a> (Fluid Mech) Bela Palancz - <a href="mailto:Palancz.Bela@fmt.bme.hu">Palancz.Bela@fmt.bme.hu</a> (Soft Computing)	BME	6 ECTS
Module 1.2	Hydrology & Hydraulics Jozsef Szilagyi - <a href="mailto:szilagyi@vit.bme.hu">szilagyi@vit.bme.hu</a> (Hydrology) Janos Jozsa - <a href="mailto:jozsa@vit.bme.hu">jozsa@vit.bme.hu</a> (Hydraulics) Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a> (Hydraulics)	BME	6 ECTS
Module 1.3	Introduction to water and aquatic environment management Istvan Ijjas - <a href="mailto:ijjas@vit.bme.hu">ijjas@vit.bme.hu</a>	BME	6 ECTS
Module 1.4	Computer skills, databases & GIS – ICT Arpad Barsi - <a href="mailto:barsi.arpad@fmt.bme.hu">barsi.arpad@fmt.bme.hu</a> (Data bases + GIS) Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a> (Comp Skills) Akos Horvath - <a href="mailto:ahorvath@mit.bme.hu">ahorvath@mit.bme.hu</a> (Java)	BME	6 ECTS
Module 1.5	Web-based collaborative engineering Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a>	BME	2 ECTS
Module 1.6	Language skills – Intensive course (UNUT)	UNUT	4 ECTS

## Basic acquisitions - UPC

<u>Semester 1</u>	<u>Content</u>	<u>Location</u>	<u>30 ECTS</u>
Module 1.1	Mathematics & physics José Rodellar - <a href="mailto:jose.rodellar@upc.edu">jose.rodellar@upc.edu</a> Francesc Pozo - <a href="mailto:francesc.pozo@upc.edu">francesc.pozo@upc.edu</a> Camino Balbuena - <a href="mailto:camino.balbuena@upc.edu">camino.balbuena@upc.edu</a>	UPC	6 ECTS
Module 1.2	Hydrology & Hydraulics Martí Sánchez - <a href="mailto:marti.sanchez@upc.edu">marti.sanchez@upc.edu</a> Ernest Bladé - <a href="mailto:ernest.blade@upc.edu">ernest.blade@upc.edu</a> Manuel Gómez - <a href="mailto:manuel.gomez@upc.edu">manuel.gomez@upc.edu</a>	UPC	6 ECTS
Module 1.3	Introduction to water and aquatic environment management Manuel Gómez - <a href="mailto:manuel.gomez@upc.edu">manuel.gomez@upc.edu</a>	UPC	6 ECTS
Module 1.4	Computer skills, databases & GIS – ICT Georgina Corestein - <a href="mailto:geocores@cimne.upc.edu">geocores@cimne.upc.edu</a> Javier Piazesse - <a href="mailto:piazesse@cimne.upc.edu">piazesse@cimne.upc.edu</a> Belén Martí - <a href="mailto:belen.marti@upc.edu">belen.marti@upc.edu</a>	UPC	6 ECTS
Module 1.5	Web-based collaborative engineering Manuel Gómez - <a href="mailto:manuel.gomez@upc.edu">manuel.gomez@upc.edu</a>	UPC	2 ECTS
Module 1.6	Language skills – Intensive course (UNUT) Foreign languages service	UPC	4 ECTS

## Basic acquisitions - BTUC

<u>Semester 1</u>	<u>Content</u>	<u>Location</u>	<u>30 ECTS</u>
Module 1.1	Mathematics & physics Georg Bader - <a href="mailto:bader@math.tu-cottbus.de">bader@math.tu-cottbus.de</a> Albrecht Gnauck - <a href="mailto:agk@tu-cottbus.de">agk@tu-cottbus.de</a>	BTUC	6 ECTS
Module 1.2	Hydrology & Hydraulics Eberhard Schaller - <a href="mailto:schaller@tu-cottbus.de">schaller@tu-cottbus.de</a> Christoph Egbers - <a href="mailto:egbers@las.tu-cottbus.de">egbers@las.tu-cottbus.de</a> Bruno Merz - <a href="mailto:bmerz@gfz-potsdam.de">bmerz@gfz-potsdam.de</a>	BTUC	6 ECTS
Module 1.3	Introduction to water and aquatic environment management Jürgen Ertel - <a href="mailto:ertel@tu-cottbus.de">ertel@tu-cottbus.de</a> Brigitte Nixdorf - <a href="mailto:b.nixdorf@t-online.de">b.nixdorf@t-online.de</a> Albrecht Gnauck - <a href="mailto:agk@tu-cottbus.de">agk@tu-cottbus.de</a>	BTUC	6 ECTS
Module 1.4	Computer skills, databases & GIS – ICT Frank Merting - <a href="mailto:merting@bauinf.tu-cottbus.de">merting@bauinf.tu-cottbus.de</a> Klaus-Peter Holz – <a href="mailto:holz@bauinf.tu-cottbus.de">holz@bauinf.tu-cottbus.de</a> Lars Weber – <a href="mailto:weber@bauinf.tu-cottbus.de">weber@bauinf.tu-cottbus.de</a>	BTUC	6 ECTS
Module 1.5	Web-based collaborative engineering Klaus-Peter Holz – <a href="mailto:holz@bauinf.tu-cottbus.de">holz@bauinf.tu-cottbus.de</a> Frank Merting - <a href="mailto:merting@bauinf.tu-cottbus.de">merting@bauinf.tu-cottbus.de</a>	BTUC	2 ECTS
Module 1.6	Language skills – Intensive course (UNUT) Foreign languages service	BTUC	4 ECTS

## Basic acquisitions - UNUT

<u>Semester 1</u>	<u>Content</u>	<u>Location</u>	<u>30 ECTS</u>
Module 1.1	Mathematics & physics P.Enda O'Connell – <a href="mailto:P.E.O'Connell@ncl.ac.uk">P.E.O'Connell@ncl.ac.uk</a> Geoff Parkin – <a href="mailto:geoff.parkin@ncl.ac.uk">geoff.parkin@ncl.ac.uk</a> Vedrana Kutija – <a href="mailto:vedrana.kutija@ncl.ac.uk">vedrana.kutija@ncl.ac.uk</a>	UNUT	6 ECTS
Module 1.2	Hydrology & Hydraulics James Bathurst – <a href="mailto:j.c.bathurst@ncl.ac.uk">j.c.bathurst@ncl.ac.uk</a> Paul Quinn – <a href="mailto:p.f.quinn@ncl.ac.uk">p.f.quinn@ncl.ac.uk</a> Chris Kilsby – <a href="mailto:c.g.kilsby@ncl.ac.uk">c.g.kilsby@ncl.ac.uk</a> Geoff Parkin – <a href="mailto:geoff.parkin@ncl.ac.uk">geoff.parkin@ncl.ac.uk</a> P.Enda O'Connell – <a href="mailto:P.E.O'Connell@ncl.ac.uk">P.E.O'Connell@ncl.ac.uk</a>	UNUT	6 ECTS
Module 1.3	Introduction to water and aquatic environment management James Bathurst – <a href="mailto:j.c.bathurst@ncl.ac.uk">j.c.bathurst@ncl.ac.uk</a> Paul Quinn – <a href="mailto:p.f.quinn@ncl.ac.uk">p.f.quinn@ncl.ac.uk</a>	UNUT	6 ECTS

	Chris Kilsby – <a href="mailto:c.g.kilsby@ncl.ac.uk">c.g.kilsby@ncl.ac.uk</a> Geoff Parkin – <a href="mailto:geoff.parkin@ncl.ac.uk">geoff.parkin@ncl.ac.uk</a> P.Enda O'Connell – <a href="mailto:P.E.O'Connell@ncl.ac.uk">P.E.O'Connell@ncl.ac.uk</a>		
Module 1.4	Computer skills, databases & GIS – ICT Philip James – <a href="mailto:philip.james@ncl.ac.uk">philip.james@ncl.ac.uk</a> Paul Quinn – <a href="mailto:p.f.quinn@ncl.ac.uk">p.f.quinn@ncl.ac.uk</a>	UNUT	6 ECTS
Module 1.5	Web-based collaborative engineering Vedrana Kutija – <a href="mailto:vedrana.kutija@ncl.ac.uk">vedrana.kutija@ncl.ac.uk</a>	UNUT	2 ECTS
Module 1.6	Language skills – Intensive course (UNUT) Foreign languages service	UNUT	4 ECTS

### Hydro-Informatics: UNUT

Semester 2	Content	Location	30 ECTS
Module 2.1	Hydro-Informatics & Integrated Water Resources Management (from global scale to local application) P.Enda O'Connell – <a href="mailto:P.E.O'Connell@ncl.ac.uk">P.E.O'Connell@ncl.ac.uk</a> Paul Quinn – <a href="mailto:p.f.quinn@ncl.ac.uk">p.f.quinn@ncl.ac.uk</a>	UNUT	7 ECTS
Module 2.2	Numerical methods & computational hydraulics Vedrana Kutija – <a href="mailto:vedrana.kutija@ncl.ac.uk">vedrana.kutija@ncl.ac.uk</a>	UNUT	6 ECTS
Module 2.3	Introduction to software packages (commercial & industrial modelling systems) James Bathurst – <a href="mailto:j.c.bathurst@ncl.ac.uk">j.c.bathurst@ncl.ac.uk</a> Vedrana Kutija – <a href="mailto:vedrana.kutija@ncl.ac.uk">vedrana.kutija@ncl.ac.uk</a> Paul Quinn – <a href="mailto:p.f.quinn@ncl.ac.uk">p.f.quinn@ncl.ac.uk</a>	UNUT	7 ECTS
Module 2.4	Software engineering Philip James – <a href="mailto:philip.james@ncl.ac.uk">philip.james@ncl.ac.uk</a>	UNUT	4 ECTS
Module 2.5	Advanced ICT, databases & GIS – Communication Stuart Barr – <a href="mailto:S.L.Barr@ncl.ac.uk">S.L.Barr@ncl.ac.uk</a>	UNUT	6 ECTS

### Thematic specialisation: Urban waters – UNSA

Semester 3	Content	Location	30 ECTS
Module 3.1	Modelling methods for urban waters (sewage network, floods and waste waters) Jean Pierre Laborde – <a href="mailto:laborde@unice.fr">laborde@unice.fr</a> Vincent Guinot – <a href="mailto:guinot@msem.univ-montp2.fr">guinot@msem.univ-montp2.fr</a> Forrest Holly – <a href="mailto:fholly@earthlink.net">fholly@earthlink.net</a> Pavel Tkalich – <a href="mailto:tmspt@nus.edu.sg">tmspt@nus.edu.sg</a> (invited) Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a> Yui Liong – <a href="mailto:tmslsy@nus.edu.sg">tmslsy@nus.edu.sg</a> (invited)	UNSA	5 ECTS
Module 3.2	Methods for water supply and waste waters treatment Zhou Yuwen – <a href="mailto:zhouyw68@bjut.edu.cn">zhouyw68@bjut.edu.cn</a> & <a href="mailto:zhouyw68@sina.com">zhouyw68@sina.com</a> (invited) Jean Pierre Laborde – <a href="mailto:laborde@unice.fr">laborde@unice.fr</a> Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a> Ole Mark – <a href="mailto:omj@dhigroup.dk">omj@dhigroup.dk</a> Antoine Labrosse – <a href="mailto:asl@dhi.fr">asl@dhi.fr</a>	UNSA	3 ECTS
Module 3.3	Economical and legal environments - Water industry & municipalities Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a> Antoine Labrosse – <a href="mailto:asl@dhi.fr">asl@dhi.fr</a> X from veolia water	UNSA	5 ECTS
Module 3.4	Project management & communication Michel Popoff – <a href="mailto:popoff@unice.fr">popoff@unice.fr</a> Philippe Gourbesville – <a href="mailto:gourbesv@unice.fr">gourbesv@unice.fr</a>	UNSA	5 ECTS
Module 3.X	Hydro-Europe Working as virtual company/institute	UNSA	6 ECTS
Module 3.Y optional	Pre professional training (all partners sharing)	UNSA	6 ECTS
Module 3.Y optional	Research introduction (all partners sharing)	BTUC	6 ECTS

## Thematic specialisation: Hydro-Informatics Systems – BTUC

Semester 3	Content	Location	30 ECTS
Module 3.1	Coupling free-surface and groundwater modelling Reinhard Hinkelmann – <a href="mailto:r.hinkelmann@iwani.tu-berlin.de">r.hinkelmann@iwani.tu-berlin.de</a> Peter Mewis - <a href="mailto:mewis@sun1.kww.bauinf.tu-darmstadt.de">mewis@sun1.kww.bauinf.tu-darmstadt.de</a>	BTUC	4 ECTS
Module 3.2	Modelling business processes, workflow and information management Gerd Wagner - <a href="mailto:wagnerg@tu-cottbus.de">wagnerg@tu-cottbus.de</a> Rainer Lehfeldt – <a href="mailto:lehfeldt@hamburg.baw.de">lehfeldt@hamburg.baw.de</a> Frank Schley - <a href="mailto:schley@bauinf.tu-cottbus.de">schley@bauinf.tu-cottbus.de</a>	BTUC	6 ECTS
Module 3.3	Geometric modelling and presentation methods Klaus-Peter Holz – <a href="mailto:holz@bauinf.tu-cottbus.de">holz@bauinf.tu-cottbus.de</a> Markus Brüggemann – <a href="mailto:markus.Brueggemann@it-motive.de">markus.Brueggemann@it-motive.de</a> Lars Weber – <a href="mailto:weber@bauinf.tu-cottbus.de">weber@bauinf.tu-cottbus.de</a>	BTUC	4 ECTS
Module 3.4	Monitoring, data acquisition and documentation Gerd Wagner - <a href="mailto:wagnerg@tu-cottbus.de">wagnerg@tu-cottbus.de</a> Klaus-Peter Holz – <a href="mailto:holz@bauinf.tu-cottbus.de">holz@bauinf.tu-cottbus.de</a>	BTUC	4 ECTS
Module 3.X	Hydro-Europe Working as virtual company/institute Klaus-Peter Holz – <a href="mailto:holz@bauinf.tu-cottbus.de">holz@bauinf.tu-cottbus.de</a> Frank Merting <a href="mailto:merting@bauinf.tu-cottbus.de">merting@bauinf.tu-cottbus.de</a>	UNSA	6 ECTS
Module 3.Y	Pre professional training (all partners sharing)	UNSA	6 ECTS
Module 3.Y	Research introduction (all partners sharing)	BTUC	6 ECTS

## Thematic specialisation: Inland waters management – BUTE

Semester 3	Content	Location	30 ECTS
Module 3.1	Modelling methods for inland surface waters (rivers with floodplains, lakes and reservoirs), Janos Jozsa - <a href="mailto:jozsa@vit.bme.hu">jozsa@vit.bme.hu</a> Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a> Peter Bakonyi - <a href="mailto:bakonyi@vituki.hu">bakonyi@vituki.hu</a>	BUTE	6 ECTS
Module 3.2	Hydrological modelling and forecasting (rainfall-runoff, flood forecast, lake and wetland water balance) Jozsef Szilagyi - <a href="mailto:szilagyi@vit.bme.hu">szilagyi@vit.bme.hu</a>	BUTE	4 ECTS
Module 3.3	River basin management and planning (under the EU Water Framework Directive) Istvan Ijjas - <a href="mailto:ijjas@vit.bme.hu">ijjas@vit.bme.hu</a>	BUTE	4 ECTS
Module 3.4	Advanced hydrometry and data analysis in surface waters (automated, various space-time resolution techniques) Tamas Kramer - <a href="mailto:kramer@vit.bme.hu">kramer@vit.bme.hu</a> Janos Jozsa <a href="mailto:jozsa@vit.bme.hu">jozsa@vit.bme.hu</a>	BUTE	4 ECTS
Module 3.X	Hydro-Europe Working as virtual company/institute	UNSA	6 ECTS
Module 3.Y	Pre professional training (all partners sharing)	UNSA	6 ECTS
Module 3.Y	Research introduction (all partners sharing)	BTUC	6 ECTS

## Thematic specialisation: Decision support systems – UPC

Semester 3	Content	Location	30 ECTS
Module 3.1	Artificial neural network for Decision Support Systems (DSS) Prof. Eugenio Oñate - <a href="mailto:onate@cimne.upc.edu">onate@cimne.upc.edu</a> Prof. Roberto López - <a href="mailto:rlopez@cimne.upc.edu">rlopez@cimne.upc.edu</a>	UPC	3 ECTS
Module 3.2	Flood risk concepts and application in river basin management Prof. Ernest Bladé - <a href="mailto:ernest.blade@upc.edu">ernest.blade@upc.edu</a> Carlos Vionnet - <a href="mailto:cvionnet@email.arizona.edu">cvionnet@email.arizona.edu</a> (invited)	UPC	5 ECTS
Module 3.3	DSS for flood risk in urban areas Manuel Gómez - <a href="mailto:manuel.gomez@upc.edu">manuel.gomez@upc.edu</a> Rodrigo Concha - <a href="mailto:rodrigo.concha@upc.edu">rodrigo.concha@upc.edu</a>	UPC	5 ECTS
Module 3.4	Real time control and operation of irrigation canals, rivers and reservoirs José Rodellar - <a href="mailto:jose.rodellar@upc.edu">jose.rodellar@upc.edu</a> Juan Mantecón - <a href="mailto:juan.mantecon@upc.edu">juan.mantecon@upc.edu</a>	UPC	5 ECTS

Module 3.X	Hydro-Europe Working as virtual company/institute	UNSA	6 ECTS
Module 3.Y	Pre professional training (all partners sharing)	UNSA	6 ECTS
Module 3.Y	Research introduction (all partners sharing)	BTUC	6 ECTS

**Professional practice (UNSA coordinator) & Research (BTUC coordinator)**

Semester 4	Content	Location	30 ECTS
Module 4.1 Option	Research & development project Following the 4 thematic specialisations developed in semester 3 or oriented through fundamental topics	Coordination BTUC	30 ECTS
Module 4.1 Option	Professional practice Following the 4 thematic specialisations developed in semester 3 or oriented through fundamental topics	Coordination UNSA	30 ECTS