

## DEPARTEMENT OF GEOINFORMATICS AND SURVEYING AN OVERVIEW

The Department of Geoinformatics and Surveying of the Technological Educational Institution of Serres has been running since 2000 a four year undergraduate course that provides in breadth and depth education across the fields of Geoinformatics and Surveying. The undergraduate program is leading to the degree of Bachelor of Science (BSc) in Geoinformatics and Surveying and includes eight semesters (one of them is a semester of practical placement). The number of courses to pass in order to obtain the undergraduate degree is 40 (including the final thesis) leading to an overall work load of 350 units. There are in total 210 credits (ECTS) of general and specialized content: 30 credits in each semester, 10 credits for the practical training and 20 credits for the final thesis (a supervised student work which is presented and evaluated in public by a three member committee). Lectures are taught in amphitheatres or special classrooms fully equipped with visual aids. A large number of courses contain exercise and laboratory sessions. These modules are taught by providing an overview of the associated theory followed by the respective exercises in the laboratory or in the field.





The performance of the students is assessed in a number of ways including both mid-term and final exams as well as coursework that students need to turn in at certain points in time during the semester. The final mark is determined as a weighted sum of the sub-marks achieved by the students at various performance assessment exercises employed by the module instructors. The educational staff makes extensive use of a web-based e-learning system for publishing syllabus, class-notes and announcements, while students seem to adopt in their whole this type of collaboration.





Currently, the department has nine full time faculty members (two associate professors, one assistant professor and six lecturers) and forty two (42) part time teaching and research associates, most of them holding a PhD degree. Although the nominal student to faculty permanent staff ratio is high, it should be noted that the current infrastructure, both in terms of physical space and equipment, is adequate enough and fulfills the requirements related to the total active mass of students.



The department is a member of AGILE (Association of GI Laboratories in Europe) and EARSel (European Association of Remote Sensing Laboratories). The typical academic undergraduate program of the Department constitutes of the following courses.

**Note:** Lec: Lectures , Tut: Tutorials, Lab: Laboratories, HpW: Hours per Week  
ECTS: European Credit Transfer System Unit

**1<sup>st</sup> Semester (Fall)**

Code	Course		Lec	Tut	Lab	HpW	ECTS
101	Mathematics I	C	4	-	-	4	7
102	Applied Informatics (I)	C	2	1	3	6	6
103	Elements of Probability and Statistics	C	2	-	-	2	4
104	Computer-Aided Design (I)	C	1	1	3	5	4
105	Surveying (I)	C	2	-	3	5	5
106	Techniques and Applications of Scientific Measurement	C	2	-	-	2	4
<b>Total</b>			<b>13</b>	<b>2</b>	<b>9</b>	<b>24</b>	<b>30</b>

### 2<sup>nd</sup> Semester (Spring)

Code	Course		Lec	Tut	Lab	HpW	ECTS
201	Mathematics II	C	3	-	-	3	5
202	Applied Informatics (II)	C	2	1	3	6	6
203	Geology	C	3	1	1	5	6
204	Computer-Aided Design (II)	C	1	-	3	4	4
205	Introduction to Geoinformatics	C	2	-	-	2	4
206	Introduction to Cartography	C	2	-	2	4	5
<b>Total</b>			<b>13</b>	<b>2</b>	<b>9</b>	<b>24</b>	<b>30</b>

### 3<sup>rd</sup> Semester (Fall)

Code	Course		Lec	Tut	Lab	HpW	ECTS.
301	Surveying II	C	2	-	3	5	5
302	Regional Planning	C	3	-	1	4	6
303	Databases	C	2	1	2	5	6
304	Human Geography and Spatial Economics	C	3	-	-	3	5
305	Road Engineering	C	2	-	2	4	5
306	Algorithms in Geoinformatics	C	1	-	2	3	3
<b>Total</b>			<b>13</b>	<b>1</b>	<b>10</b>	<b>24</b>	<b>30</b>

### 4<sup>th</sup> Semester (Spring)

Code	Course		Lec	Tut	Lab	HpW	ECTS.
401	GIS I	C	2	-	3	5	6
402	Photogrammetry I	C	2	-	3	5	5
403	Transportation	C	2	-	2	4	5
404	Planning Quantitative methods in Geographical Analysis	C	3	-	-	3	5
405	Surveying III	C	2	-	1	3	4
406	Urban Planning History and Legislation	C	2	-	2	4	5
<b>Total</b>			<b>13</b>	<b>1</b>	<b>10</b>	<b>24</b>	<b>30</b>

#### 5<sup>th</sup> Semester (Fall)

Code	Course		Lec	Tut	Lab	HpW	ECTS
501	Global Positioning Systems	C	2	1	3	6	6
502	GIS II	C	2	-	3	5	5
504	Thematic Cartography	C	2	-	2	4	5
506	Photogrammetry II	C	3	-	2	5	7
<b>Electives</b>							
503	Environmental Legislation	CC	3	2	1	6	7
505	Real Estate and Property Management	CC	3	2	1	6	7
<b>Total</b>			<b>12</b>	<b>3</b>	<b>11</b>	<b>26</b>	<b>30</b>

#### 6<sup>th</sup> Semester (Spring)

Code	Course		Lec	Tut	Lab	HpW	ESTS
601	Applications in Regional and Urban Planning (GIS III)	C	2	2	2	6	6
602	Ecology and Sustainable Development	C	2	1	1	4	5
603	Cadastral Systems	C	2	1	1	4	5
606	Remote Sensing	C	3	1	2	6	7
<b>Electives</b>							

604	Spatial Decision Support Systems	CC	3	1	2	6	7
605	Land Distribution	CC	3	1	2	6	7
<b>Total</b>			<b>12</b>	<b>6</b>	<b>8</b>	<b>26</b>	<b>30</b>

**7<sup>th</sup> Semester (Fall)**

Code	Course		Lec	Tut	Lab	HpW	ECTS
702	Local Authorities and IT Systems	C	2	-	2	4	5
703	Cultural Documentation Systems	C	2	-	2	4	5
704	Urban Hydraulics	C	3	-	2	5	7
705	Applied Urban Planning	C	2	1	3	6	6
<b>Electives</b>							
701	Principles of Environmental Planning	CC	3	2	2	7	7
706	Remote Sensing Applications	CC	3	2	2	7	7
<b>Total</b>			<b>12</b>	<b>3</b>	<b>11</b>	<b>26</b>	<b>30</b>

<b>Total</b>		<b>88</b>	<b>17</b>	<b>69</b>	<b>174</b>	<b>210</b>
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<b>Total Lec +Tut</b>		<b>105</b>
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<b>(Lec+Tut)/ Lab=</b>		<b>1,52</b>
<b>Lab+0.50*E =</b>		<b>104</b>

**8<sup>th</sup> Semester**

Code	Course			Lec	Tut	Lab	HpW	ECTS
-	Diploma Thesis							20
-	Practical Placement							10
<b>Total</b>								<b>30</b>

In concluding we could stress that the Geoinformatics and Surveying department is very well prepared to play a significant role in Greek Tertiary Education System. Our vision is to strengthen our performance and to turn the department to a regional center of excellence in the field.

We are looking forward to welcoming you to our Department in our beautiful campus located at the south edge of the charming city of Serres.

September, 29  
Lila Theodoridou-Sotiriou  
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Head of the Department

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