

**A single year**

**The Higher Education degree concerned by this preliminary programme is the :**

\* Bachelor in industrial sciences

**Compulsory courses**

ASTR0213-1	<i>Geometric Geodesy and Positional Astronomy</i> - René WARNANT - [1d FW]	30	15	[+]	<b>5</b>
GEOG0232-4	<i>Topography : Equipments and Methods</i> - Roland BILLEN - [2d FW]	30	15	[+]	<b>6</b>
GEOG0039-1	<i>Introduction to GNSS</i> - René WARNANT - [2d FW]	15	5	[+]	<b>3</b>
GEOG0626-1	<i>Theory of Errors</i> - René WARNANT	15	15	-	<b>3</b>
PHYS0209-2	<i>Numerical methods in physics</i> - Alejandro SILHANEK	15	20	-	<b>4</b>
INFO0009-2	<i>Database (general organisation) (part)</i> - Pierre WOLPER	25	25	-	<b>6</b>
INFO0062-1	<i>Object-Oriented Programming</i> - Bernard BOIGELOT	30	30	-	<b>6</b>
GEOG0206-1	<i>Cartography (with an introduction to GIS)</i> - JeanPaul DONNAY	30	40	-	<b>7</b>
GEOG0216-1	<i>Complement of cartographic projections</i> - JeanPaul DONNAY	15	15	-	<b>3</b>
GEOG0255-1	<i>Space analysis and S.I.G.</i> - JeanPaul DONNAY	30	30	-	<b>6</b>
GEOG0024-1	<i>Remote Sensing</i> - Yves CORNET	30	30	-	<b>6</b>
DROI2222-1	<i>Notions of property law</i> - Pascale LECOCQ - Suppl : Arianne SALVÉ	45	-	-	<b>5</b>