

**MSc on "Forestry and Environmental Sciences" (two years study plan - starting 2020/21)**  
**Laurea Magistrale in "Scienze Forestali e Ambientali" (CLASSE LM-73)**

**Curriculum "Forests and Environment"**

Code	Subjects titles (exams) and modules	SSD	Credits (CFU)	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Principal Lectures
<b>FIRST YEAR</b>										
17926	<b>Forest ecophysiology</b>	AGR/05	<b>6</b>	40	8	48	<b>S</b>	1	1 <sup>st</sup>	
17697	<b>Forest genetics and Biotechnology</b>		<b>12</b>				<b>M</b>	1		
	<i>Forest biotechnology</i>	AGR/05	<b>6</b>	40	8	48			1 <sup>st</sup>	Kuzminsky
	<i>Forest genetics</i>	AGR/07	<b>6</b>	44	4	48			1 <sup>st</sup>	Ciaffi
17927	<b>Monitoring soil quality</b>	AGR/13	<b>6</b>	44	4	48	<b>S</b>	1	1 <sup>st</sup>	Moscatelli
118981	<b>Monitoring Terrestrial Ecosystems Carbon Cycle (ICOS)</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	1	1 <sup>st</sup>	Papale
118982	<b>Remote sensing in forest resource management</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	1	1 <sup>st</sup>	Barbati
118983	<b>Invasive forest pathogens and global changes</b>	AGR/12	<b>6</b>	40	8	48	<b>S</b>	1	2 <sup>nd</sup>	Vannini
118552	<b>Silviculture II and Wood products</b>		<b>13</b>				<b>M</b>	1		
	<i>Silviculture of Mediterranean and temperate forests</i>	AGR/05	<b>7</b>	44	12	56	<b>S</b>		2 <sup>nd</sup>	Sabatti
	<i>Wood-based biocomposites</i>	AGR/06	<b>6</b>	40	8	48	<b>S</b>		2 <sup>nd</sup>	Romagnoli
118984	<b>Technical english language</b>		<b>4</b>			32		1	2 <sup>nd</sup>	
<b>SECOND YEAR</b>										
17700	<b>Forest management planning</b>	AGR/05	<b>7</b>	48	8	56	<b>S</b>	2	3 <sup>rd</sup>	Portoghesi
17930	<b>Forest economics and policy</b>	AGR/01	<b>6</b>	44	4	48	<b>S</b>	2	3 <sup>rd</sup>	Carbone F.
17703	<b>Vertebrates of forest ecosystems</b>	BIO/05	<b>6</b>	40	8	48	<b>S</b>	2	3 <sup>rd</sup>	Zapparoli
17929	<b>Applied hydrology</b>	AGR/08	<b>6</b>	40	8	48	<b>S</b>	2	4 <sup>th</sup>	Grimaldi
14366	<b>Free selection of disciplines (AFS)</b>		<b>12</b>					1-2	1 <sup>st</sup> - 4 <sup>th</sup>	
15912	<b>Internship in research laboratories, professional enterprises, public administrations and other organisations</b>		<b>4</b>			<b>100 registered working hours</b>		1-2	free	
17559	<b>Thesis - written in English or Italian</b>		<b>20</b>			<b>500 working hours (average)</b>		2	3 <sup>rd</sup> - 4 <sup>th</sup>	
Total credits		120								

**Additional extracurricular subjects, which can be selected to complete the career (as AFS)**

Code	Subjects titles (exams) and modules	SSD	Credits (CFU)	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Principal Lectures
118546	<b>Phytotechnologies to protect water and soil in urban areas</b>	AGR/05	<b>6</b>	44	4	48	<b>S</b>	n.a.	1 <sup>st</sup>	De Angelis
118985	<b>Management of forests and agroforest soils</b>	AGR/14	<b>6</b>	24	24	48	<b>S</b>	n.a.	2 <sup>nd</sup>	T. Chiti
118553	<b>Monitoring Ecosystem Services</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	n.a.	2 <sup>nd</sup>	R. Valentini
118654	<b>Propagation of plants and pathogens control</b>	AGR/05	<b>6</b>				<b>M</b>	n.a.		
	<i>Micropropagation of plants</i>	AGR/05	<b>4</b>	16	16	32		n.a.	2 <sup>nd</sup>	E. Kuzminsky
	<i>Pathogens control in plant propagation</i>	AGR/12	<b>2</b>	8	8	16		n.a.	2 <sup>nd</sup>	A. Vetraino
118547	<b>Trees and plants to improve air quality of urban areas</b>	AGR/05	<b>6</b>	44	4	48	<b>S</b>	n.a.	2 <sup>nd</sup>	*

**Curricular subjects, which can be selected only by incoming students under mobility programmes or by students enrolled in other MSc courses at UNITUS, or for single courses enrolment**

Code	Subjects titles (exams) and modules	SSD	Credits (CFU)	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Principal Lectures
118558	<b>Forest genetics</b>	AGR/07	<b>6</b>	44	4	48	<b>S</b>	n.a.	1 <sup>st</sup>	Ciaffi
118556	<b>Silviculture of Mediterranean and temperate forests</b>	AGR/05	<b>6</b>	44	4	48	<b>S</b>	n.a.	2 <sup>nd</sup>	Sabatti
118550	<b>Wood-based biocomposites</b>	AGR/06	<b>6</b>	40	8	48	<b>S</b>	n.a.	2 <sup>nd</sup>	Romagnoli

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**Curriculum Mediterranean Forestry and Natural Resources Management (MEDFOR)**

**1st year in partner Universities\* - 2nd year in Viterbo / multiple degrees**

\*MEDfOR consortium (Portugal, Spain, Turkey, Italy) - multiple degrees

Code	Subjects titles (exams) and modules - corresponding first year exams -	SSD	CFU	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Principal Lectures
<b>FIRST YEAR</b>										
17705	<b>Forest management planning</b>	AGR/05	<b>6</b>	40	8	48	<b>S</b>	1	1 <sup>st</sup>	<i>Portoghesi</i>
17701	<b>Forest economics and policy</b>	AGR/01	<b>6</b>	44	4	48	<b>S</b>	1	1 <sup>st</sup>	<i>Carbone F.</i>
118986	<b>Biological sciences for sustainable forest management</b>		<b>12</b>				<b>M</b>	1		
	<i>Vertebrates of forest ecosystems</i>	BIO/05	<b>6</b>	40	8	48			1 <sup>st</sup>	<i>Zapparoli</i>
	<i>Invasive forest pathogens and global changes</i>	AGR/12	<b>6</b>	40	8	48			2 <sup>nd</sup>	<i>Vannini</i>
17852	<b>Silviculture II and Wood products</b>		<b>12</b>				<b>M</b>	1		
	<i>Silviculture of Mediterranean and temperate forests</i>	AGR/05	<b>6</b>	44	4	48			2 <sup>nd</sup>	<i>Sabatti</i>
	<i>Wood-based biocomposites</i>	AGR/06	<b>6</b>	44	4	48			2 <sup>nd</sup>	<i>Romagnoli</i>
17702	<b>Applied hydrology</b>	AGR/08	<b>6</b>	40	8	48	<b>S</b>	1	2 <sup>nd</sup>	<i>Grimaldi</i>
14366	<b>Free selection of disciplines (AFS)</b>		<b>12</b>					1	1 <sup>st</sup> - 2 <sup>nd</sup>	
<b>SECOND YEAR</b>										
16365	<b>Forest biotechnology</b>	AGR/05	<b>6</b>	40	8	48	<b>S</b>	2	3 <sup>rd</sup>	<i>Kuzminsky</i>
16340	<b>Forest ecophysiology</b>	AGR/05	<b>6</b>	40	8	48	<b>S</b>	2	3 <sup>rd</sup>	<i>De Angelis</i>
118987	<b>Monitoring Terrestrial Ecosystems Carbon Cycle (ICOS)</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	1	3 <sup>rd</sup>	<i>Papale</i>
118988	<b>Remote sensing in forest resource management</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	2	3 <sup>rd</sup>	<i>Barbati</i>
16343	<b>Forest tree cropping</b>	AGR/05	<b>6</b>	36	12	48	<b>S</b>	2	3 <sup>rd</sup>	<i>Sabatti</i>
16344	<b>Monitoring soil quality</b>	AGR/13	<b>6</b>	44	4	48	<b>S</b>	2	3 <sup>rd</sup>	<i>Moscatelli</i>
15912	<b>Internship in research laboratories, professional enterprises, public administrations and other organisations</b>		<b>4</b>		<b>100</b> registered working hours		1-2	free		
16355	<b>Thesis - written in English</b>		<b>26</b>		<b>650</b> working hours (average)		2	4 <sup>th</sup>		

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***Laurea Magistrale in "Scienze Forestali e Ambientali" (CLASSE LM-73)***

**Curriculum Management and design of Urban Green Infrastructures (UGI)**

Viterbo (UNITUS) - Moscow (RUDN) / double degree

Code	Subjects titles (exams) and modules	SSD	CFU	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Lecturer
<b>FIRST YEAR for UNITUS students - SECOND YEAR for RUDN students</b>										<b>Active 2020/21</b>
118981	<b>Monitoring Terrestrial Ecosystems Carbon Cycle (ICOS)</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	1	1 <sup>st</sup>	Papale
17123	<b>Soil pollution and monitoring</b>	AGR/13	<b>6</b>	44	4	48	<b>S</b>	1	1 <sup>st</sup>	De Cesare
118982	<b>Remote sensing in forest resource management</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	1	1 <sup>st</sup>	Barbati
17125	<b>Urban forestry</b>	AGR/05	<b>6</b>	44	4	48	<b>S</b>	1	1 <sup>st</sup>	Valentini R
17122	<b>Phytotechnologies for remediation and improvement of urban environment</b>		<b>12</b>				<b>M</b>	1		
	<i>Phytotechnologies to protect water and soil in urban areas</i>	AGR/05	<b>6</b>	44	4	48			1 <sup>st</sup>	De Angelis
	<i>Trees and plants to improve air quality of urban areas</i>	AGR/05	<b>6</b>	44	4	48			2 <sup>nd</sup>	*
17126	<b>Urban hydrology</b>	AGR/08	<b>6</b>	40	8	48	<b>S</b>	1	2 <sup>nd</sup>	Grimaldi
<b>SECOND YEAR for UNITUS students - FIRST YEAR for RUDN students</b>										<b>Active 2021/22</b>
17124	<b>Phytopathology and Plant Protection</b>	AGR/12	<b>6</b>	40	8	48	<b>S</b>	2	3 <sup>rd</sup>	E. Pakina (RUDN)
118544	<b>Urban ecology</b>	BIO/07	<b>6</b>	40	8	48	<b>S</b>	2	3 <sup>rd</sup> - 4 <sup>th</sup>	V. Vasenev/ K. Ivaschenko (RUDN)
118545	<b>Data analysis and statistics</b>	SECS-S/02	<b>8</b>	56	8	64	<b>S</b>	2	3 <sup>rd</sup> - 4 <sup>th</sup>	V. Vasenev/ K. Ivaschenko (RUDN)
17128	<b>Landscape design, architecture and city-planning</b>	ICAR/14	<b>8</b>	56	8	64	<b>S</b>	2	3 <sup>rd</sup> - 4 <sup>th</sup>	Ilya Mochalov (RUDN)
118543	<b>International regulation in city planning and environmental protection</b>	SECS-P/06	<b>6</b>	40	8	48	<b>S</b>	2	4 <sup>th</sup>	V. Plyushchikov & M. De Martino (RUDN)
14366	<b>Free selection of disciplines (AFS) *</b>		<b>12</b>					1-2	1 <sup>st</sup> - 4 <sup>th</sup>	
15912	<b>Internship in research laboratories, professional enterprises, public administrations and other organisations</b>		<b>4</b>		<b>100 registered working hours</b>		1-2	free		
18454	<b>Thesis - written in English **</b>		<b>28</b>		<b>700 working hours (average)</b>		2	from 2 <sup>nd</sup>		
<b>Total credits</b>				<b>120</b>						

**Extracurricular subjects, which can be selected to complete the career (as AFS) at UNITUS**

Code	Subjects titles (exams) and modules	SSD	Credits (CFU)	Class activities (hours)	Practical activities (hours)	Total supervised hours	Course type	Year	Semester	Active 2020/21
118985	<b>Management of forests and agroforest soils</b>	AGR/14	<b>6</b>	24	24	48	<b>S</b>	n.a.	2 <sup>nd</sup>	T. Chiti
118553	<b>Monitoring Ecosystem Services</b>	AGR/05	<b>6</b>	24	24	48	<b>S</b>	n.a.	2 <sup>nd</sup>	R. Valentini
118654	<b>Propagation of plants and pathogens control</b>	AGR/05	<b>6</b>				<b>M</b>	n.a.		
	<i>Micropropagation of plants</i>	AGR/05	<b>4</b>	16	16	32		n.a.	2 <sup>nd</sup>	E. Kuzminsky
	<i>Pathogens control in plant propagation</i>	AGR/12	<b>2</b>	8	8	16		n.a.	2 <sup>nd</sup>	A. Vetraino

**Free selection of disciplines (AFS) at RUDN \***

<i>Scientific writing skills</i>	<b>6</b>									V. Vasenev/ K. Ivaschenko (RUDN)
<i>Business English</i>	<b>6</b>									Tatiana Meer (RUDN)
<b>Total</b>	<b>12</b>									

**Thesis at RUDN - written in English (\*\*)**

Scientific research and thesis preparation	<b>11</b>
Practice - Scientific research and thesis preparation	<b>8</b>
Practice - Preparation and defence of the thesis	<b>6</b>
State exam	<b>3</b>
<b>Total</b>	<b>28</b>