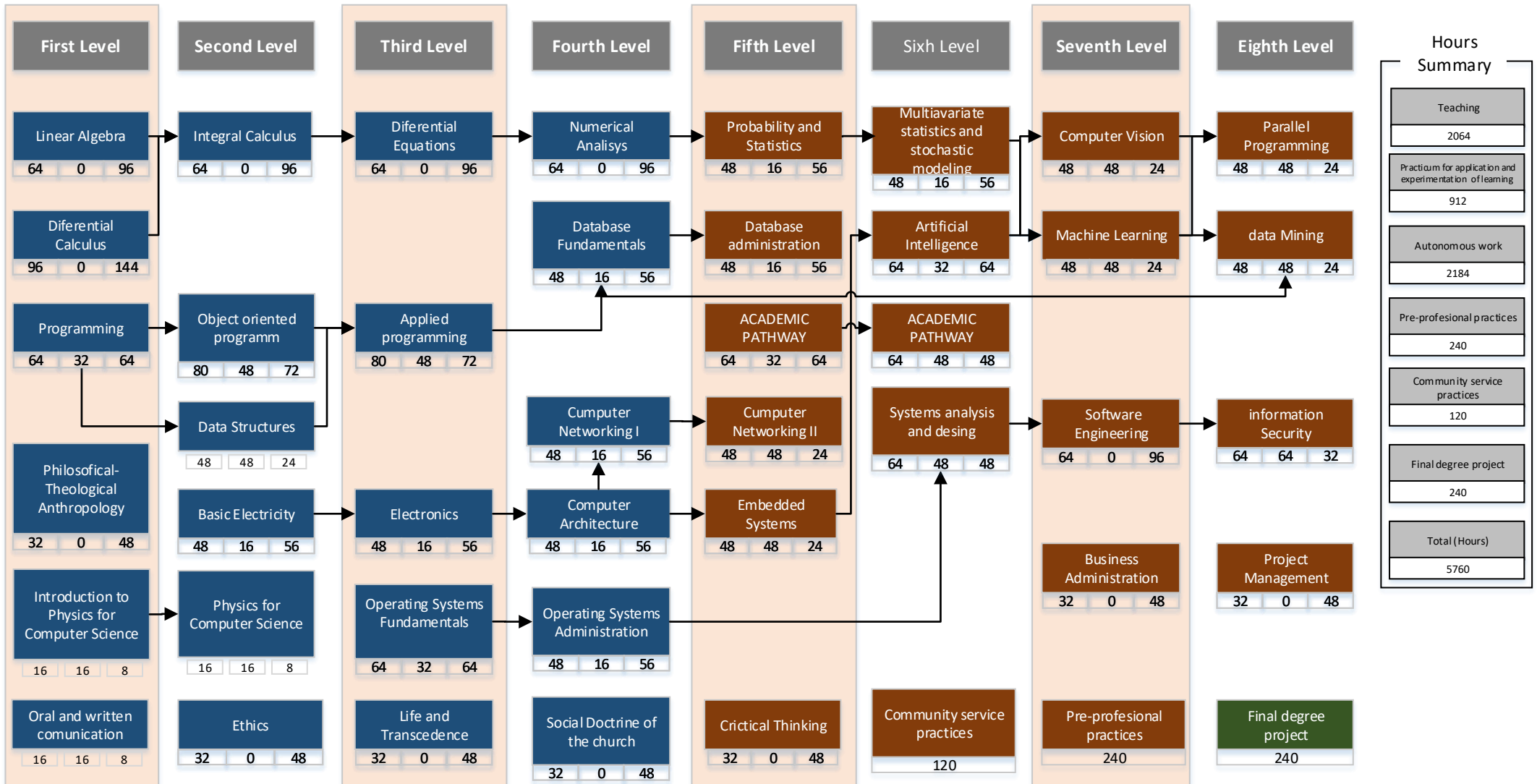


**Computer Science Career**  
**On-Campus mode**  
**Campus: Cuenca**



- Basic Courses
- Professional Course
- Curriculum Integration
- Pre-requisite

ACADEMIC PATHWAY 1: SOFTWARE		ACADEMIC PATHWAY 2: INFORMATION SYSTEMS MANAGEMENT		ACADEMIC PATHWAY 3: NETWORKING	
Level 5	Programming and Web Platform	Level 5	Process management	Level 5	Architecture and Network Management
Level 6	Distributed Computing	Level 6	Project Management and IT Governance	Level 6	Wireless Networking Fundamentals

1		
2	3	4

1 Course name  
 2 Hours for teaching  
 3 Hours for Practicum for application and experimentation of learning  
 4 Hours for autonomous work

Unit	Level	Code	Asignature	Pre-requisites	Teaching	Practicum for application and experimentation of learning	Autonomous work	Pre-profesional practices	Community service practices	Curriculum Integration	Total (Hours)
Basic	1	01	Linear Algebra		64	0	96				160
Basic	1	02	Diferential Calculus		96	0	144				240
Basic	1	03	Programming		64	32	64				160
Basic	1	101	Introduction to Physics for Computer Science		16	16	8				40
Basic	1	04	Philosofical-Theological Anthropology		32	0	48				80
Basic	1	102	Oral and written comunication		16	16	8				40
<b>Subtotales:</b>					<b>288</b>	<b>64</b>	<b>368</b>				<b>720</b>
Basic	2	06	Ethics		32	0	48				80
Basic	2	07	Integral Calculus	01, 02	64	0	96				160
Basic	2	08	Object oriented programm	03	80	48	72				200
Basic	2	103	Physics for Computer Science	101	16	16	8				40
Basic	2	09	Basic Electricity		48	16	56				120
Basic	2	104	Data Structures	03	48	48	24				120
<b>Subtotales:</b>					<b>288</b>	<b>128</b>	<b>304</b>				<b>720</b>
Basic	3	11	Life and Transcedence		32	0	48				80
Basic	3	12	Diferential Equations	07	64	0	96				160
Basic	3	13	Electronics	09	48	16	56				120
Basic	3	14	Applied programming	08, 104	80	48	72				200
Basic	3	15	Operating Systems Fundamentals		64	32	64				160
<b>Subtotales:</b>					<b>288</b>	<b>96</b>	<b>336</b>				<b>720</b>
Basic	4	16	Social Doctrine of the church		32	0	48				80
Basic	4	17	Numerical Analsys	12	64	0	96				160
Basic	4	18	Computer Architecture	13	48	16	56				120
Basic	4	19	Cumputer Networking I		48	16	56				120
Basic	4	20	Operating Systems Administration	15	48	16	56				120
Basic	4	21	Database Fundamentals	14	48	16	56				120
<b>Subtotales:</b>					<b>288</b>	<b>64</b>	<b>368</b>				<b>720</b>
Professional	5	22	Critical Thinking		32	0	48				80
Professional	5	23	Cumputer Networking II	19	48	48	24				120
Professional	5	24	Database administration	21	48	16	56				120
Professional	5	25	Embedded Systems	18	48	48	24				120
Professional	5	26	Probability and Statistics	17	48	16	56				120
Professional	5	27	Academic Pathway		64	32	64				160
<b>Subtotales:</b>					<b>288</b>	<b>160</b>	<b>272</b>				<b>720</b>
Professional	6	28	Community service practices						120		120
Professional	6	29	Multiavariate statistics and stochastic modeling	26	48	16	56				120
Professional	6	30	Academic Pathway	27	64	48	48				160
Professional	6	31	Systems analysis and desing	20	64	48	48				160
Professional	6	32	Artificial Intelligence	25	64	32	64				160
<b>Subtotales:</b>					<b>240</b>	<b>144</b>	<b>216</b>		<b>120</b>		<b>720</b>
Professional	7	33	Business Administration		32	0	48				80
Professional	7	34	Pre-profesional practices					240			240
Professional	7	35	Machine Learning	32	48	48	24				120
Professional	7	36	Computer Vision	29, 32	48	48	24				120
Professional	7	37	Software Engineering	31	64	0	96				160
<b>Subtotales:</b>					<b>192</b>	<b>96</b>	<b>192</b>	<b>240</b>			<b>720</b>
Curriculum Integration	8	38	Final degree project							240	240
Professional	8	39	Project Management		32	0	48				80
Professional	8	40	Data Mining	14, 35	48	48	24				120
Professional	8	41	information Security	37	64	64	32				160
Professional	8	42	Parallel Programming	35, 36	48	48	24				120

Unit	Level	Code	Asignature	Pre-requisites	Teaching	Practicum for application and experimentation of learning	Autonomous work	Pre-profesional practices	Community service practices	Curriculum Integration	Total (Hours)
<b>Subtotales:</b>					<b>192</b>	<b>160</b>	<b>128</b>			<b>240</b>	<b>720</b>
<b>Total de Horas:</b>					<b>2064</b>	<b>912</b>	<b>2184</b>	<b>240</b>	<b>120</b>	<b>240</b>	<b>5760</b>
					<b>Aprendizaje Contacto Docente</b>	<b>Aprendizaje Práctico Experimental</b>	<b>Aprendizaje Autónomo</b>	<b>Prácticas pre profesionales</b>	<b>Prácticas de Servicio Comunitario</b>	<b>Integración Curricular</b>	<b>Total Horas</b>

**Academic Pathway 1: Software**

Unit	Nivel	Asignature	Total (Hours)
Professional	5	Programming and Web Plataform	160
Professional	6	Distributed Computing	160

**ITINERARIO 2: GESTIÓN DE SISTEMAS DE INFORMACIÓN**

Unit	Nivel	Asignature	Total (Hours)
Professional	5	Process management	160
Professional	6	Project Management and IT Governance	160

**ITINERARIO 3: REDES**

Unit	Nivel	Asignature	Total (Hours)
Professional	5	Architecture and Network Management	160
Professional	6	Wireless Networking Fundamentals	160