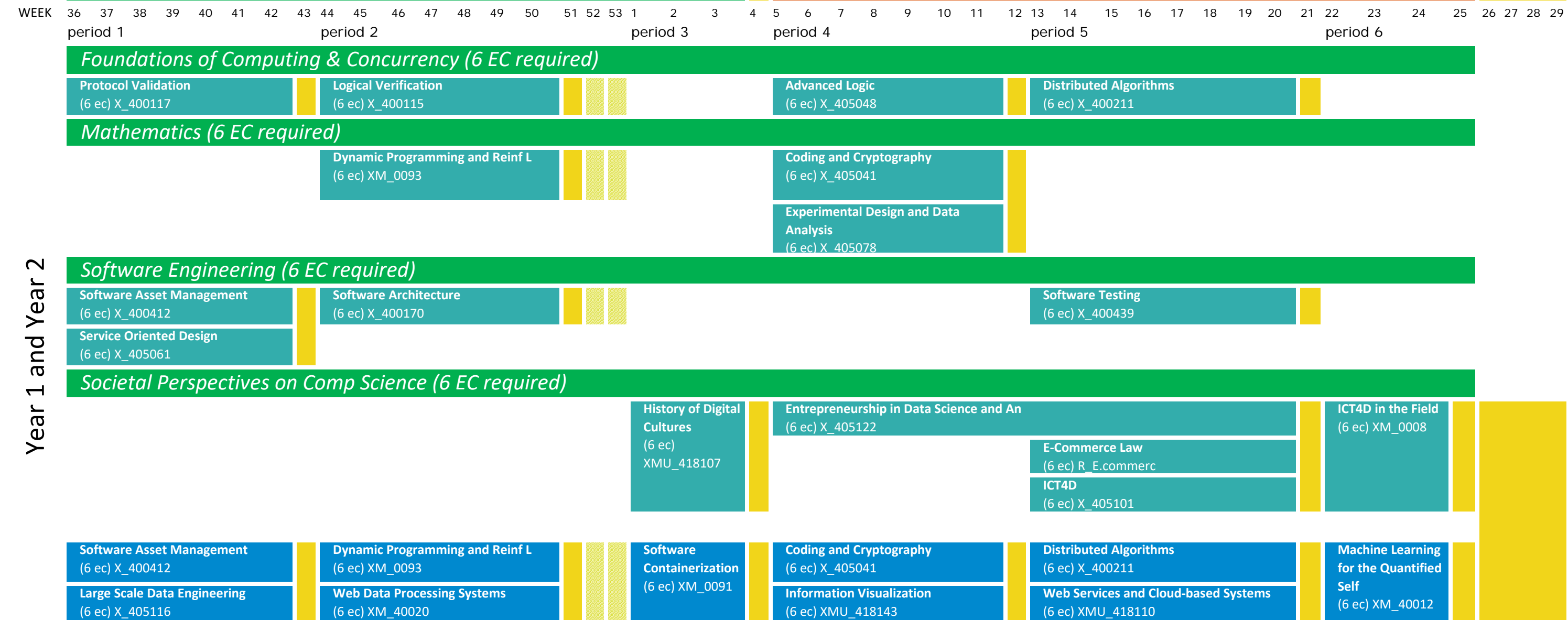
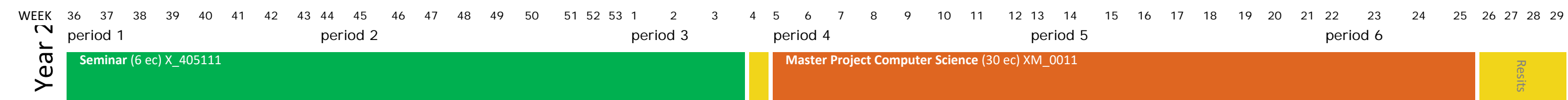
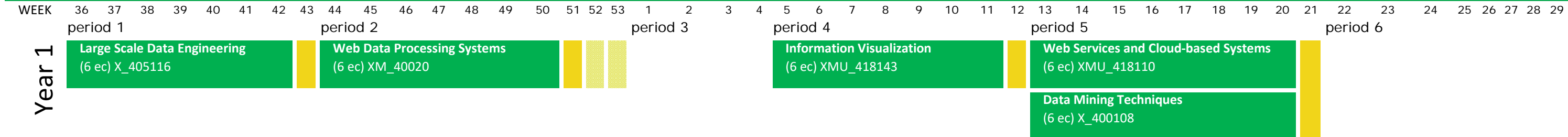


Year Schedule MSc Computer Science 2020 - 2021

Track Big Data Engineering



Year 1 and Year 2

Protocol Validation (6 ec) X_400117	Software Architecture (6 ec) X_400170	Parallel Programming Practical (6 ec) X_400162	Advanced Logic (6 ec) X_405048	Software Testing (6 ec) X_400439	ICT4D in the Field (6 ec) XM_0008
Service Oriented Design (6 ec) X_405061	Logical Verification (6 ec) X_400115	High Performance Computing and Big Data (6 ec) XMU_40013	Experimental Design and Data Analysis (6 ec) X_405078	Data Mining Techniques (6 ec) X_400108	Project Systems Testing (6 ec) X_405124
Evolutionary Computing (6 ec) X_400111	Storage Systems (6 ec) XM_0092	Parallel System Architectures (6 ec) XMU_40015	Term Rewriting Systems (6 ec) XM_400121	ICT4D (6 ec) X_405101	
Computer and Network Security (6 ec) X_400127	Distributed Systems (6 ec) X_400130		Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	Performance Engineering (6 ec) XMU_40016	
Knowledge Organization (6 ec) X_405065	Advanced Computer Networks (6 ec) X_405082			Binary and Malware Analysis (6 ec) X_405100	
Introduction to Computational Science (6 ec) XMU_418111	The Social Web (6 ec) X_405086				
Green Lab (6 ec) X_418158	Knowledge Engineering (6 ec) X_405099				
Advanced Operating Systems (6 ec) XM_40014	Performance of Networked Systems (6 ec) X_405105				
Programming Large-scale Parallel Systems (6 ec) XM_40017	Hardware Security (6 ec) XM_40019				
	Concurrency Theory (6 ec) XMU_0012				
Lambda Calculus (6 ec) XMU_418108					
Industrial Internship (6 ec) XM_405080					
Individual Systems Practical (6 ec) XM_405088					

Resits

Track Computer Systems Security

WEEK 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
 period 1 period 2 period 3 period 4 period 5 period 6

Year 1



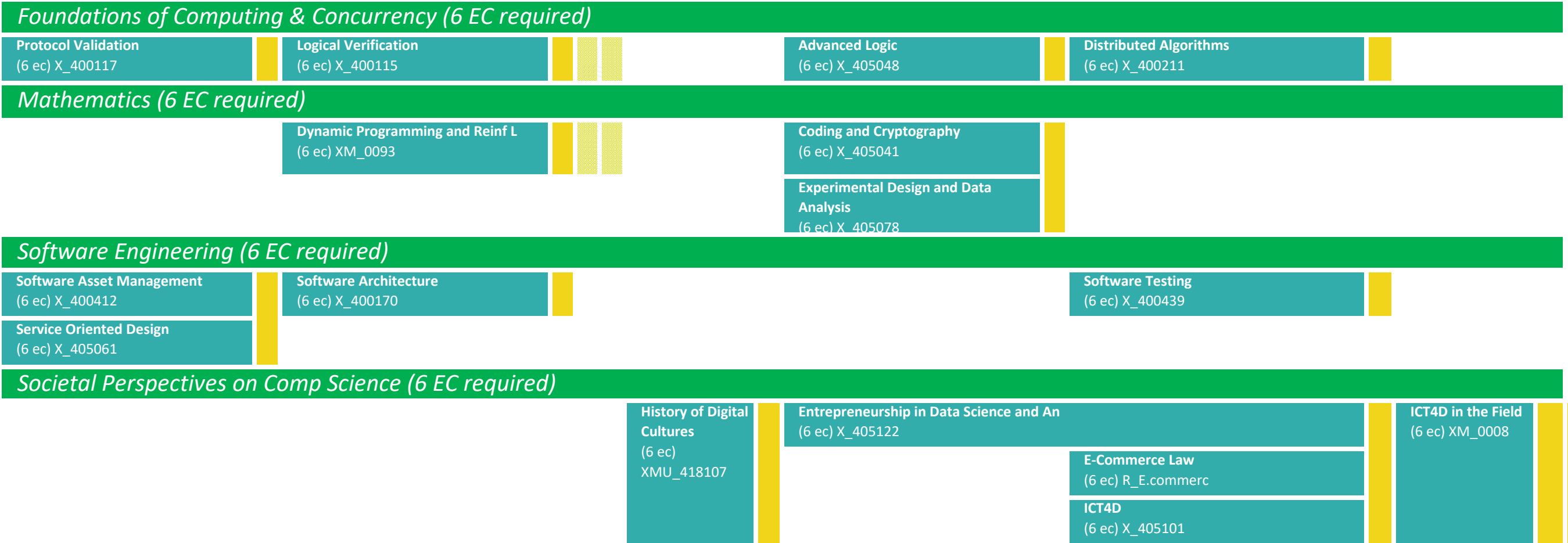
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 period 1 period 2 period 3 period 4 period 5 period 6

Year 2



WEEK 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
 period 1 period 2 period 3 period 4 period 5 period 6

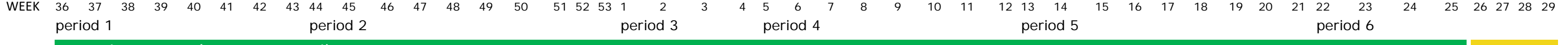
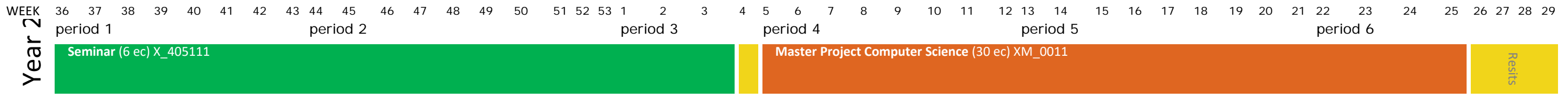
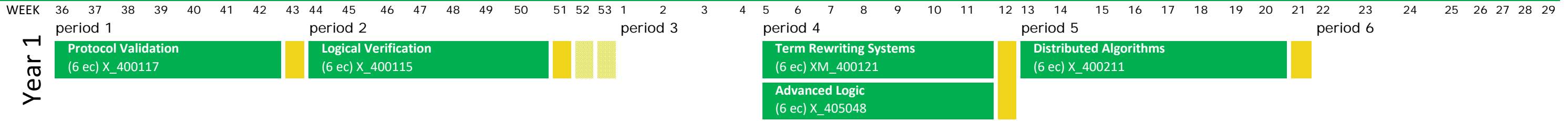
Year 1 and Year 2



Year 1 and Year 2

Software Asset Management (6 ec) X_400412	Dynamic Programming and Reinf L (6 ec) XM_0093	Software Containerization (6 ec) XM_0091	Information Visualization (6 ec) XMU_418143	Web Services and Cloud-based Systems (6 ec) XMU_418110	ICT4D in the Field (6 ec) XM_0008
Large Scale Data Engineering (6 ec) X_405116	Web Data Processing Systems (6 ec) XM_40020		Experimental Design and Data Analysis (6 ec) X_405078	Software Testing (6 ec) X_400439	
Protocol Validation (6 ec) X_400117	Software Architecture (6 ec) X_400170	Parallel Programming Practical (6 ec) X_400162	Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	Data Mining Techniques (6 ec) X_400108	Project Systems Testing (6 ec) X_405124
Service Oriented Design (6 ec) X_405061	Logical Verification (6 ec) X_400115		Advanced Logic (6 ec) X_405048	Binary and Malware Analysis (6 ec) X_405100	
Evolutionary Computing (6 ec) X_400111	Storage Systems (6 ec) XM_0092	High Performance Computing and Big Data (6 ec) XMU_40013	Term Rewriting Systems (6 ec) XM_400121	ICT4D (6 ec) X_405101	Machine Learning for the Quantified Self (6 ec) XM_40012
Computer and Network Security (6 ec) X_400127	Distributed Systems (6 ec) X_400130	Parallel System Architectures (6 ec) XMU_40015	Coding and Cryptography (6 ec) X_405041	Distributed Algorithms (6 ec) X_400211	
Knowledge Organization (6 ec) X_405065	Advanced Computer Networks (6 ec) X_405082			Performance Engineering (6 ec) XMU_40016	
Introduction to Computational Science (6 ec) XMU_418111	The Social Web (6 ec) X_405086				
Green Lab (6 ec) X_418158	Knowledge Engineering (6 ec) X_405099				
Advanced Operating Systems (6 ec) XM_40014	Performance of Networked Systems (6 ec) X_405105				
Programming Large-scale Parallel Systems (6 ec) XM_40017	Hardware Security (6 ec) XM_40019				
	Concurrency Theory (6 ec) XMU_0012				
Lambda Calculus (6 ec) XMU_418108					
Industrial Internship (6 ec) XM_405080					
Individual Systems Practical (6 ec) XM_405088					
Resits					

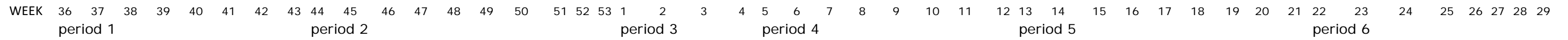
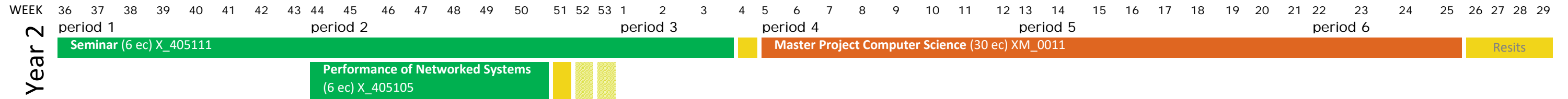
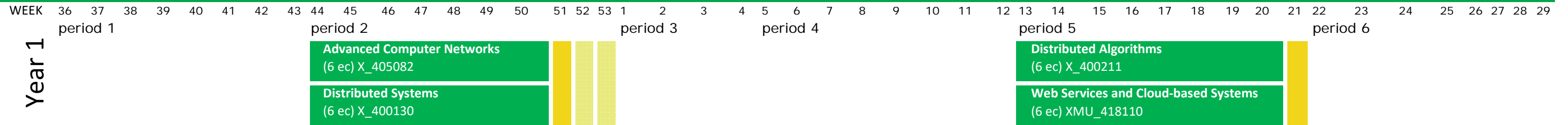
Track Foundations of Computing and Concurrency



Year 1 and Year 2

Software Asset Management (6 ec) X_400412	Advanced Computer Networks (6 ec) X_405082	Software Containerization (6 ec) XM_0091	Advanced Logic (6 ec) X_405048	Software Testing (6 ec) X_400439	ICT4D in the Field (6 ec) XM_0008	Resits	
Large Scale Data Engineering (6 ec) X_405116	Dynamic Programming and Reinf L (6 ec) XM_0093	Parallel Programming Practical (6 ec) X_400162	Coding and Cryptography (6 ec) X_405041	Distributed Algorithms (6 ec) X_400211	Project Systems Testing (6 ec) X_405124		
Protocol Validation (6 ec) X_400117	Software Architecture (6 ec) X_400170		Term Rewriting Systems (6 ec) XM_400121	ICT4D (6 ec) X_405101			
Service Oriented Design (6 ec) X_405061	Logical Verification (6 ec) X_400115	High Performance Computing and Big Data (6 ec) XMU_40013	Experimental Design and Data Analysis (6 ec) X_405078	Binary and Malware Analysis (6 ec) X_405100	Machine Learning for the Quantified Self (6 ec) XM_40012		
Evolutionary Computing (6 ec) X_400111	Distributed Systems (6 ec) X_400130	Parallel System Architectures (6 ec) XMU_40015	Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	Web Services and Cloud-based Systems (6 ec) XMU_418110			
Computer and Network Security (6 ec) X_400127	The Social Web (6 ec) X_405086	Industrial Internship (6 ec) XM_405080	Information Visualization (6 ec) XMU_418143	Performance Engineering (6 ec) XMU_40016			
Knowledge Organization (6 ec) X_405065	Knowledge Engineering (6 ec) X_405099						
Introduction to Computational Science (6 ec) XMU_418111	Performance of Networked Systems (6 ec) X_405105						
Green Lab (6 ec) X_418158	Hardware Security (6 ec) XM_40019						
Advanced Operating Systems (6 ec) XM_40014	Web Data Processing Systems (6 ec) XM_40020						
Programming Large-scale Parallel Systems (6 ec) XM_40017	Concurrency Theory (6 ec) XMU_0012						
Lambda Calculus (6 ec) XMU_418108							
Individual Systems Practical (6 ec) XM_405088							

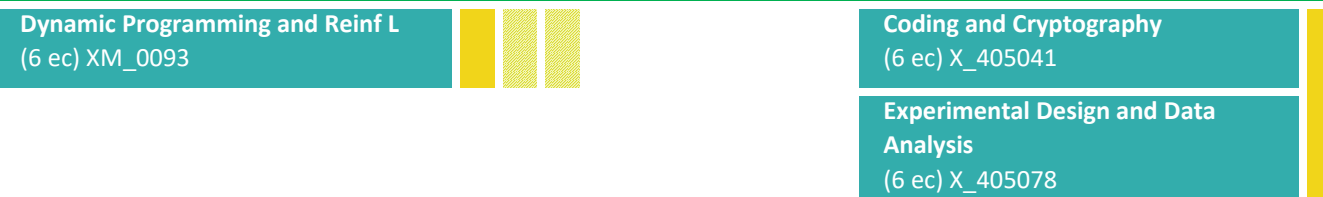
Track Internet and Web Technology



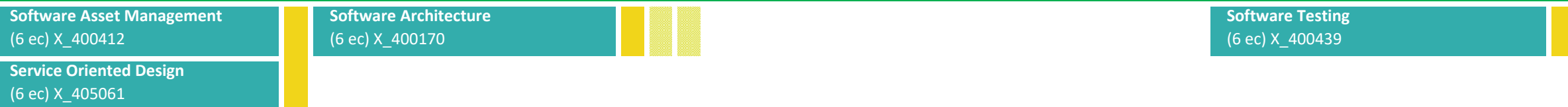
Foundations of Computing & Concurrency (6 EC required)



Mathematics (6 EC required)



Software Engineering (6 EC required)



Societal Perspectives on Comp Science (6 EC required)



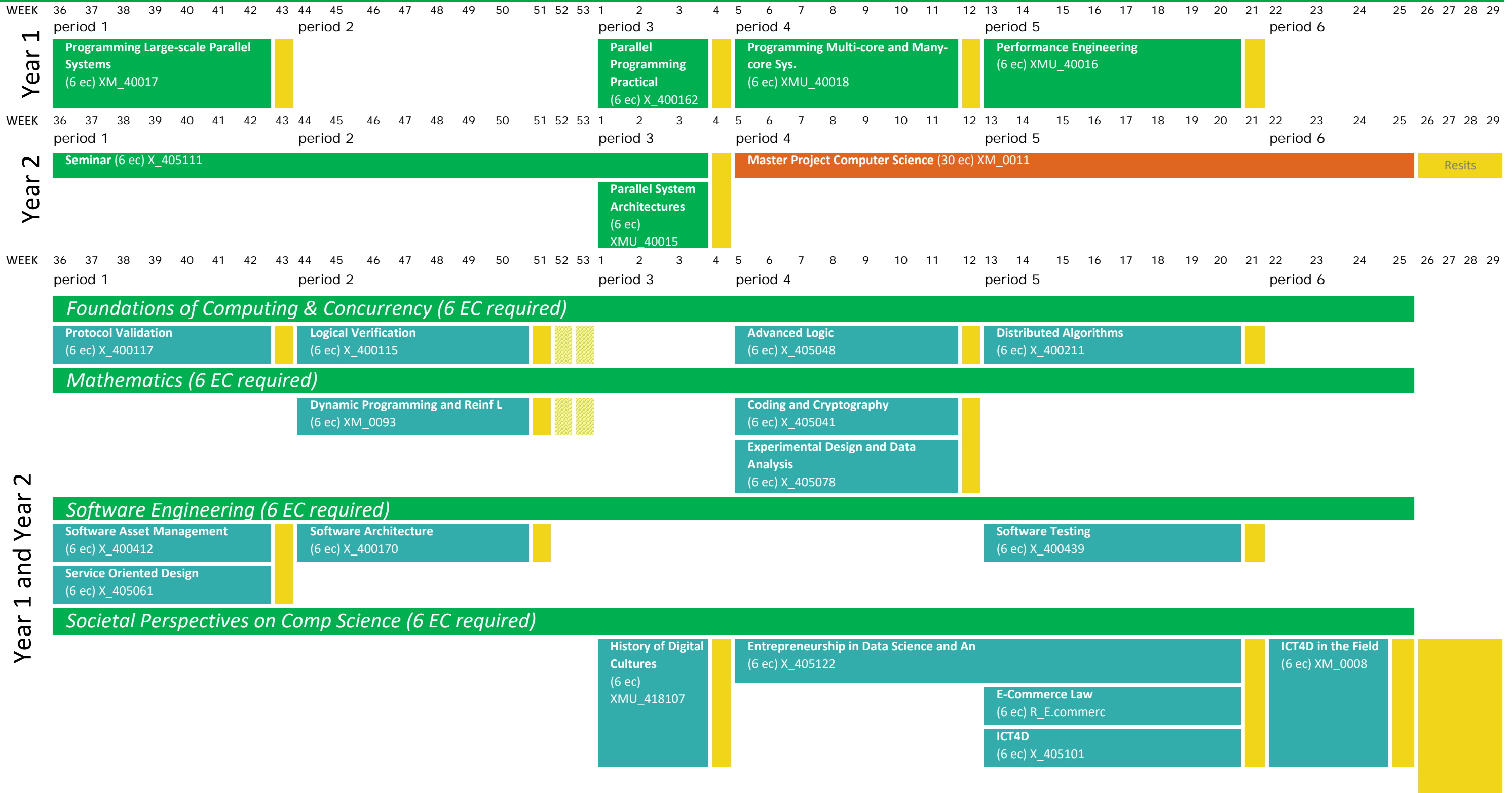
Year 1 and Year 2

Year 1 and Year 2

Software Asset Management (6 ec) X_400412	Distributed Systems (6 ec) X_400130	Software Containerization (6 ec) XM_0091	Advanced Logic (6 ec) X_405048	Web Services and Cloud-based Systems (6 ec) XMU_418110	ICT4D in the Field (6 ec) XM_0008
Large Scale Data Engineering (6 ec) X_405116	Dynamic Programming and Reinf L (6 ec) XM_0093	Parallel Programming Practical (6 ec) X_400162	Coding and Cryptography (6 ec) X_405041	Software Testing (6 ec) X_400439	Project Systems Testing (6 ec) X_405124
Protocol Validation (6 ec) X_400117	Software Architecture (6 ec) X_400170	High Performance Computing and Big Data (6 ec) XMU_40013	Term Rewriting Systems (6 ec) XM_400121	Data Mining Techniques (6 ec) X_400108	Machine Learning for the Quantified Self (6 ec) XM_40012
Service Oriented Design (6 ec) X_405061	Advanced Computer Networks (6 ec) X_405082	Parallel System Architectures (6 ec) XMU_40015	Experimental Design and Data Analysis (6 ec) X_405078	Binary and Malware Analysis (6 ec) X_405100	
Evolutionary Computing (6 ec) X_400111	Performance of Networked Systems (6 ec) X_405105		Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	ICT4D (6 ec) X_405101	
Computer and Network Security (6 ec) X_400127	Logical Verification (6 ec) X_400115		Information Visualization (6 ec) XMU_418143	Distributed Algorithms (6 ec) X_400211	
Knowledge Organization (6 ec) X_405065	Storage Systems (6 ec) XM_0092			Performance Engineering (6 ec) XMU_40016	
Introduction to Computational Science (6 ec) XMU_418111	The Social Web (6 ec) X_405086				
Green Lab (6 ec) X_418158	Knowledge Engineering (6 ec) X_405099				
Advanced Operating Systems (6 ec) XM_40014	Hardware Security (6 ec) XM_40019				
Programming Large-scale Parallel Systems	Web Data Processing Systems (6 ec) XM_40020				
	Concurrency Theory (6 ec) XMU_0012				
Lambda Calculus (6 ec) XMU_418108					
Industrial Internship (6 ec) XM_405080					
Individual Systems Practical (6 ec) XM_405088					

Resits

Track Parallel Computing Systems

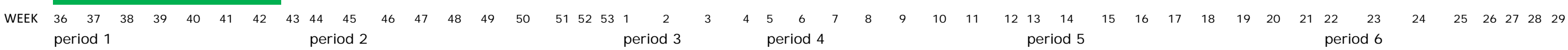
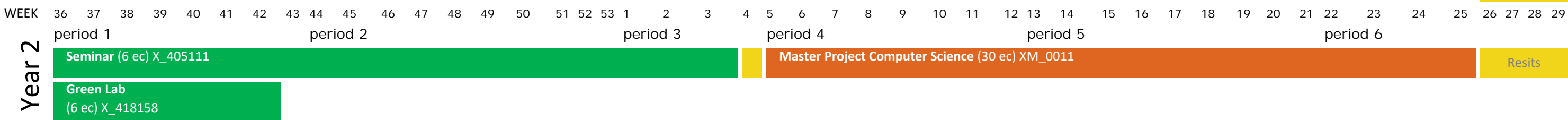
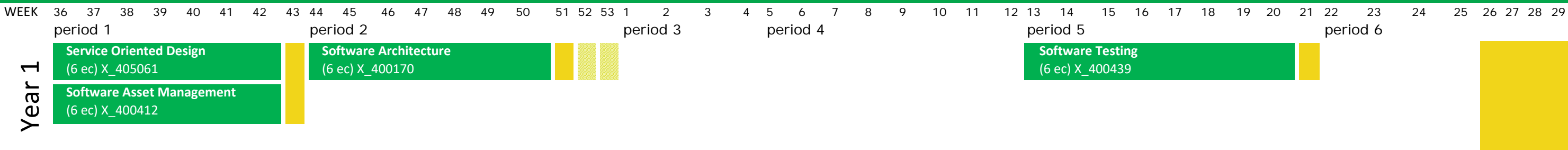


Year 1 and Year 2

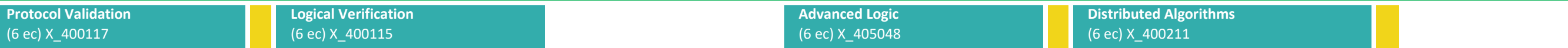
Software Asset Management (6 ec) X_400412	Distributed Systems (6 ec) X_400130	Software Containerization (6 ec) XM_0091	Advanced Logic (6 ec) X_405048	Web Services and Cloud-based Systems (6 ec) XMU_418110	ICT4D in the Field (6 ec) XM_0008
Large Scale Data Engineering (6 ec) X_405116	Dynamic Programming and Reinf L (6 ec) XM_0093	Parallel Programming Practical (6 ec) X_400162	Coding and Cryptography (6 ec) X_405041	Software Testing (6 ec) X_400439	Project Systems Testing (6 ec) X_405124
Protocol Validation (6 ec) X_400117	Software Architecture (6 ec) X_400170	High Performance Computing and Big Data (6 ec) XMU_40013	Term Rewriting Systems (6 ec) XM_400121	Data Mining Techniques (6 ec) X_400108	Machine Learning for the Quantified Self (6 ec) XM_40012
Service Oriented Design (6 ec) X_405061	Advanced Computer Networks (6 ec) X_405082	Parallel System Architectures (6 ec) XMU_40015	Experimental Design and Data Analysis (6 ec) X_405078	Binary and Malware Analysis (6 ec) X_405100	
Evolutionary Computing (6 ec) X_400111	Performance of Networked Systems (6 ec) X_405105		Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	ICT4D (6 ec) X_405101	
Computer and Network Security (6 ec) X_400127	Logical Verification (6 ec) X_400115		Information Visualization (6 ec) XMU_418143	Distributed Algorithms (6 ec) X_400211	
Knowledge Organization (6 ec) X_405065	Storage Systems (6 ec) XM_0092			Performance Engineering (6 ec) XMU_40016	
Introduction to Computational Science (6 ec) XMU_418111	The Social Web (6 ec) X_405086				
Green Lab (6 ec) X_418158	Knowledge Engineering (6 ec) X_405099				
Advanced Operating Systems (6 ec) XM_40014	Hardware Security (6 ec) XM_40019				
Programming Large-scale Parallel Systems (6 ec) XM_40017	Web Data Processing Systems (6 ec) XM_40020				
	Concurrency Theory (6 ec) XMU_0012				
Lambda Calculus (6 ec) XMU_418108					
Industrial Internship (6 ec) XM_405080					
Individual Systems Practical (6 ec) XM_405088					

Resits

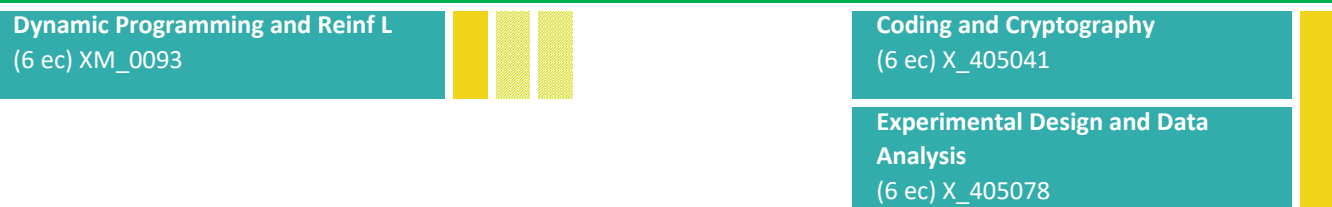
Track Software Engineering and Green IT



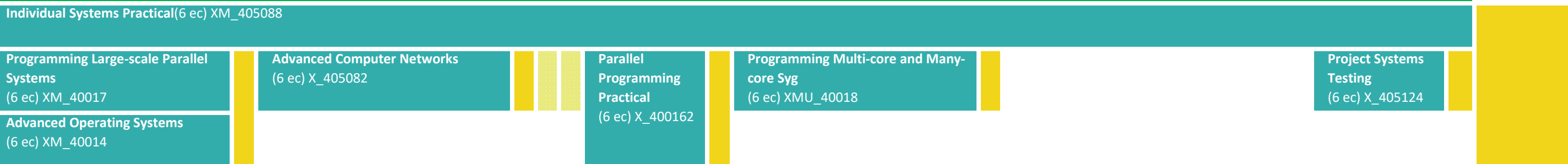
Foundations of Computing & Concurrency (6 EC required)



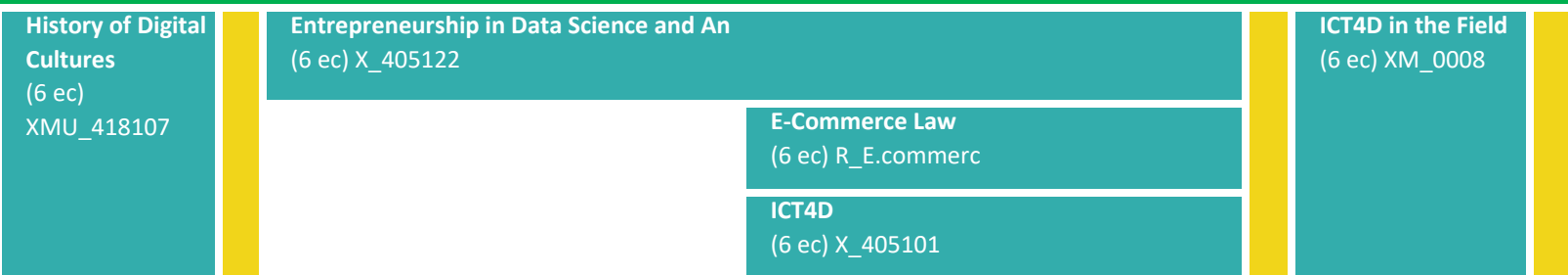
Mathematics (6 EC required)



Programming (6 EC required)



Societal Perspectives on Comp Science (6 EC required)



Year 1 and Year 2

Year 1 and Year 2

Software Asset Management (6 ec) X_400412	Distributed Systems (6 ec) X_400130	Software Containerization (6 ec) XM_0091	Advanced Logic (6 ec) X_405048	Web Services and Cloud-based Systems (6 ec) XMU_418110	ICT4D in the Field (6 ec) XM_0008
Large Scale Data Engineering (6 ec) X_405116	Dynamic Programming and Reinf L (6 ec) XM_0093		Coding and Cryptography (6 ec) X_405041	Software Testing (6 ec) X_400439	
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Evolutionary Computing (6 ec) X_400111	Performance of Networked Systems (6 ec) X_405105	Parallel System Architectures (6 ec) XMU_40015	Programming Multi-core and Many-core Sys. (6 ec) XMU_40018	ICT4D (6 ec) X_405101	
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Programming Large-scale Parallel Systems (6 ec) XM_40017	Web Data Processing Systems (6 ec) XM_40020				
	Concurrency Theory (6 ec) XMU_0012				
Lambda Calculus (6 ec) XMU_418108					
Industrial Internship (6 ec) XM_405080					
Individual Systems Practical (6 ec) XM_405088					

Resits

Resits	P1	P2	P3	P4	P5	P6
Information Sciences	wk 1	wk 6/7	wk 13	wk 22	wk 26	wk 28
Natural Sciences & Mathematics	wk 1	wk 6/7	wk 13	wk 22	wk 26	wk 28
Health & Life Sciences	wk 1	wk 6/7	wk 13	wk 22	wk 26	wk 28
Earth, Ecological & Environmental Sciences	wk 1	wk 6/7	wk 13	wk 22	wk 26	wk 28