Semester of studios	Course code	Course title	ECTS credits
1	210101	History of Economic Thought	4,5
	210111	Business Law	4,5
	220311	Credit Scoring - business process automation	3,0
	220521	Basic R Programming	1,5
	220541	Python Programming	3,0
	223061	Databases Build and Exploitation	3,0
	223091	Big Data	3,0
	223101	Querrying, Dala Presentation, Data, Visualisalion and Reporting	3,0
	223121	Data Mining	3,0
		Cloud Computing	3,0
	2/1 99	Training on Fundamentals of Intellectual Property Protection elearning)	0,0
		Library Training (e-learning)	0,0
	2/1 999	Training on Occupational and (e-learning)	0,0
	Total ECTS: 31,5		
2	222801	Advanced Optimization Methods	6,0
	223491	Statistical Learning Methods	6,0
	229081	Duration analysis	3,0
	Major, elective and minor courses		15,0
			Total ECTS: 60
	220551	Cybersecurity	4,5
	229091	Advanced Business Analytics, Data Imputation Techniques	4,5
	290001	Master's Seminar - first semester	8,0
		Major, elective and minor courses	13,0
			Total ECTS: 90
4	222891	Real-Time Analytics	3,0
	290002	Master's Seminar - second semester	12,0
		Major, elective and minor courses	15,0
			otal ECTS: 20

Plan of studies SMMB-AAB: Advanced Analytics - Big Data, Graduate, full-time

Within the credits for elective courses a student may do internship (90 hours) and obtain 3 ECTS point for it. Trainings (24996, 24999, 24998) - obligatory for students who have not graduated the first-degree studies at SGH Warsaw School of Economics.