## Double Degree Master Programme between Tongji University and Universitat Politècnica de Catalunya-UPC

This DD master program consists of several courses from the existing master program Master in Civil and Hydraulic Engineering at Tongji University and Master in Civil Engineering" at UPC, chartered program in Spain that allows graduates to enroll the Spanish Civil Engineer Association (professional degree).

Master in Civil Engineering at Camins-UPC, Structural Engineering Specialty (1st year)

Master in Civil and Hydraulic Engineering at Tongji (2nd year)

E. Camins: S1+S2 (60 ECTS, mandatory courses)

Tongji U: 35 ECTS recognised + 25 ECTS Master Thesis (total 60 ECTS)

## Academic track for UPC students at UPC

Specialisation in Structural Engineering		local credits	ECTS	Equivalent course at Tongji University
1st year at UPC MECCP	250401 - Mechanics of continua		9	
	250402 - Numerical modelling		9	
	250403 - Structural analysis		7,5	
	250404 - Hydraulic infrastructure		4,5	
	250405 - Structural engineering		6	
	250406 - Computational engineering		6	
	250407 - Geomechanical & geotechnical engineering		6	
	250408 - Water engineering		6	
	250409 - Planning & management of transportation		6	
	Total 1st year		60	
2 <sup>nd</sup> and 3 <sup>rd</sup> year at Tongji (3 semesters)	2300001 Chinese Language Course	3		
	2900006 A General View of China	3		
	2020578 Engineering Ethics	2		
	2020573 Traditional Building Structures in China	2	Е	
	2020378 Tall Building Structures	2	5	250470 - Building structures 250471 - Bridges
	2020405 Advanced Theory of Bridge Structures	3	5	
	2020153 Advanced Concrete Theory of Structure	3	5	250473 - Advanced design of concrete structures
	2020388 Advanced Theory of Steel Structures	2	5	250472 - Analysis & design of steel structures
	2020327 Earthquake Engineering	2	5	250476 - Seismic risk assessment & reduction
	2020376 Advanced Experimental Techniques in Structural Testing	2	5	
	2020572 Structural Rehabilitation and Strengthening	2		250474 - Structural management
	2020542 Composite Structures I	1	5	
	2020541 Composite Structures II	1		250475 - Mixed & composite structures
	2020509 Academic English	1		
	2020563 Research frontiers and development trends of civil	2		
	2102002 Numerical Analysis	3		
	Thesis (to be defended at UPC and Tongji)	0	25	Thesis
	2900002 Thesis Proposal	1		
	2900007 Professional Practice	6		
	2900011 Code of Academic Integrity	1		
	2900012 TJ Advanced Lectures	2		
	2900013 Mid-term Evaluation	0		
	Total 2nd year	44	60	
TOTAL ECTS			120	