

# Education Plan for Academic Graduate in Management Science & Engineering

(Discipline Code:1201,Award Master Degree of Management)

## I Objectives

The subject aims to cultivate senior professionals in management science and engineering. Specific requirements include: master the basic theory of Marxism, set up scientific world view, insist on the party's basic line, love the motherland; observe law and discipline, have good conduct; be honest and respectable, work together, have good ethics of scientific research and professional spirit, courage innovation; master the broad, solid basic theory and systematic professional knowledge, understand the dynamic forefront of this subject; have the ability to do management theories researches and use management theories to analyze and solve practical problems; have a macro perspective, have the ability of systematic analysis, strategies studies and qualitative and quantitative analysis; master a foreign language, read professional literature proficiency; Have healthy physique and good mental quality.

## II Disciplinary Research Areas

1. Management Science and Engineering
2. Information Management and Information System
3. Financial Engineering and Management
4. Innovation Engineering and Management
5. Engineering and Project Management
6. Public Security and Emergency Management

## III Educational System and Years of Study

The schooling is 3 years, and the school year is generally 3 years and no more than 5 years; the required course credits must be at least a total of 24 credits, the degree course credits must be at least a total of 17 credits, and the compulsory part is at least 5 credits.

## IV Curriculum System and Credit Requirements

Course Category		Course No.	Course Name	Hour	Credit	Semester	School	Remark
Degree Courses	Public Courses	003281001	First Foreign Language(Chinese)	108	6	12	School of Internation Education	Compulsory Courses
		003281002	Introduction to China	54	3	1	School of Internation Education	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
Professional Courses	02121007	Probability of Dialectics of Nature	18	1	1	School of Marxism	
	00321001	Operational research	36	2	1	School of Management	
	00321002	Advanced applied statistics	36	2	1	School of Management	
	00321033	Research methodology in management	18	1	2	School of Management	
	00321004	Economics	36	2	2	School of Management	
	00321005	Decision theory and method	36	2	1	School of Management	Management Science and Engineering
	00321006	Strategic management and decision	36	2	1	School of Management	
	00321007	Management information system(?)	36	2	1	School of Management	Compulsory Courses for Information Management and Information System
	00321008	Principles and application of database	36	2	1	School of Management	
	00321009	Theories of financial engineering	36	2	1	School of Management	Other directions choose two courses from 00321005-
	00321010	Financial risk management	36	2	1	School of Management	
	00321011	Technological innovation management	36	2	2	School of Management	

Course Category		Course No.	Course Name	Hour	Credit	Semester	School	Remark
		00321012	Product engineering	36	2	1	School of Management	00321014 as compulsory courses
		00321013	Engineering economics	36	2	1	School of Management	
		00321014	Project plan and control	36	2	1	School of Management	
Optional Courses		00322001	Professional English in management science & science	18	1	2	School of Management	Compulsory Course
		00322002	Theories and methods of system comprehensive evaluation	36	2	2	School of Management	Management Science and Engineering
		00322003	Corporate risk management	36	2	2	School of Management	
		00322004	Management of supply chain and logistics	36	2	2	School of Management	
		00322005	Modern operational management	36	2	1	School of Management	
		00321219	Advanced marketing management	36	2	1	School of Management	
		00322007	Game theory	36	2	1	School of Management	
		00321304	Modern optimization algorithm	36	2	2	School of Management	
		00322009	Corporate financing	36	2	2	School of Management	
		00322010	Econometrics	36	2	2	School of Management	
		00322011	Economic forecasting & decision2	36	2	2	School of Management	
		00322012	Time series analysis	36	2	2	School of Management	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
	00322013	Structural equation modelling	36	2	2	School of Management	
	00322014	Intelligence computation and decision support	36	2	2	School of Management	Information Management and Information System
	00322015	Data warehouse and data mining	36	2	2	School of Management	
	00322016	Network technology and E-commerce	36	2	2	School of Management	
	00322017	Knowledge management and engineering	36	2	2	School of Management	
	00322018	Management modeling and algorithm analysis	36	2	2	School of Management	
	00322019	Practical programming techniques	36	2	2	School of Management	
	00322020	ERP ERP technology and application	36	2	2	School of Management	
	00322021	Mathematical finance	36	2	2	School of Management	
	00322022	Theories and tactics of securities investment	36	2	1	School of Management	
	00322023	Behavior finance	36	2	2	School of Management	
	00322024	Financial derivatives	36	2	2	School of Management	
	00322025	Management and evaluation of credit	36	2	1	School of Management	
	01622008	Financial economics	36	2	1	School of Economics	
	00322026	Business and innovation in commercial banks	36	2	2	School of Management	

<b>Course Category</b>	<b>Course No.</b>	<b>Course Name</b>	<b>Hour</b>	<b>Credit</b>	<b>Semester</b>	<b>School</b>	<b>Remark</b>
	00322028	Financial market	36	2	1	School of Management	
	00322029	Methods of idea creation	36	2	2	School of Management	Innovation Management( you can also choose from the courses for Management Science and Engineering)
	00322030	R&D project management	36	2	2	School of Management	
	00321220	Feasibility study and investment decision	36	2	2	School of Management	
	00322032	Entrepreneurship management	36	2	2	School of Management	
	00322033	Management of Hi-tech park	36	2	2	School of Management	
	00322035	Theories and practice of business incubator	36	2	2	School of Management	
	00322036	Value innovation management	36	2	2	School of Management	
	00322038	Project human resource management	36	2	2	School of Management	
	00322039	Project risk management	36	2	2	School of Management	
	00322040	Tendering and contract management	36	2	2	School of Management	
	00322041	Theories and methods of project evaluation	36	2	2	School of Management	
	00322042	Management communication	36	2	2	School of Management	
	00322043	Project management	36	2	2	School of Management	
	00322044	Project procurement management	36	2	2	School of Management	
	00322046	Project quality control	36	2	2	School of Management	

Course Category	Course No.	Course Name	Hour	Credit	Semester	School	Remark
	00322047	Application of project management software	36	2	2	School of Management	
Disciplinary selective Trans course	02223001	Taijiquan and its	18	1	1	Department of Physical Education	At least choose one course
Interprofessional Elective	(choose any course belong to the School of Management but not belong to the students subject)						For all directions, choosing one course
Obligatory parts	00324004	Practice parts for the Master of School of Management		3	3	School of Management	
	00324002	The report of topic selection and mid-term examination		1	3	School of Management	
	00324003	Academic activities for the Master of School of Management	=5 times	1	3	School of Management	
(Supplementary courses for undergraduate studies)	Operational research Operational research Quality management Financial management Marketing Human resource management Management information system Corporate network engineering Corporate database application Applied data structure MISMIS database E-commerce Financial engineering Financial economics Finance & accounting Monetary Banking Management Accounting Technical economics Statistics Project management Engineering economics					School of Management	

## V Compulsory Courses

### A. Practical parts

The practice part is 3 credits. It is divided into professional practices and social practices, professional practices included: participating in projects, writing papers and participating in contests, etc., social practices can be taken by "Be an assistant and Be an assistant manager" and other forms.

Graduate students should investigate at least three units (companies, financial institutions, government departments, etc.). Before opening report, students should conduct professional survey on selected topic areas, and add the investigation results to "opening report." Any one of the following practices completed by students can be noted 1 credits, including: professional practices,

social practices, innovation and entrepreneurial activities, competitions, high-level papers and awarding achievements, job graduate students can be exempted, but no credit, and the missing credits must be filled by completing optional courses ; completing an application report and 20 minutes PPT of provincial (city) level and above natural (social) science longitudinal funds project, can note 2 credits after checking.

#### B. Report of topic selection and mid-term examination

1. The report of topic selection is 1 credit. After entering the school, the graduate student should clear their research area in teachers' guidance, consult the related literature at home and abroad, carry out extensive studies, and raise topic selection report. The graduate student can ensure the topic after checking. The graduate student can get 1 compulsory credit if qualified.

2. The graduate student must attend the mid-term examination. The graduate student can know the specific requirements in handbook "Measures for the management of graduate student mid-term examination and the topic".

#### C. Academic activities

The academic activity is 1 credit. In order to encourage graduate students to know the dynamic forefront of this subject, broaden their horizons and excise the creativity, every student should attend academic activities such as domestic and international seminars, lectures, management forum at least 5 times, and write activities' experience with more than 500 words. After checking and reviewing by teachers (groups), the graduate student can get 1 compulsory credit if qualified.

### **VI Scientific Research and Dissertation**

1. Thesis have a theoretical and practical significance, with some difficulty, the depth, breadth and workload, and read no less than 40 authority literatures, in which at least 14 foreign literature.

2. Thesis must be independently completed by graduate students under the guidance of instructors, to be able to show that the student has the ability to undertake scientific research or take on special operations and the ability to analyze and solve problems. Graduate students should regularly report the work progress to the tutor, and the tutor should always know and check the progress of Thesis and give timely guidance. Thesis must be done independently by graduate students, and plagiarism is strictly forbidden.

3. Thesis should have new ideas, these idea have a scientific basis and practical value.

4. Thesis should implement combinations of theory and practice, and of qualitative analysis and quantitative analysis, encouraging students to use statistical analysis and mathematical model. Thesis must have correct argument, logical reasoning, informative material and fluent words.

5. Thesis should comprise: Chinese and English summary and keywords, contents, introduction to the significance of the topic and article ideas, main body with analysis and discussion, conclusion to summarize findings, references and postscript or thanks.

7. The shortest period between the pass date of "opening report" and Thesis defense is no less than eight months.

8. Thesis must pass the test. Graduates' Thesis must pass "Dissertation academic misconduct detection system (TMLC2)", and meet the related requirements of Academic Degree Evaluation Committee, and then you can apply for Thesis defense. According to the "thesis and degree application and approval approach", the School of Management conducts Thesis defense, after passing Thesis defense, and discussed and approved by the College and School Degree Evaluation Committee, postgraduate students can obtain a master's degree in management.

9. Graduate students are required to write at least one published academic paper. You can know the specific requirements in Graduate Handbook “Wuhan University of technology regulations of published papers and graduates’ application for degree”

## **VII Cultivation Mode and Method**

Graduates’ training measures should adhere to the tutor (tutor group) responsible system or the faculty (department ) collective training, give full play to the tutor’s leading role, mobilize tutor (tutor group) initiative, guide students a comprehensive development of the political ideas and business learning. The followings are specific methods:

1. Adhere to the combination of political theory and regular political, ideological discipline and education. Carefully learn the lessons of political theory, at the same time, requiring students to participate actively in political learning, community service and other group activities.

2. Adhere to combination teaching methods of classroom teaching and self-teaching and discussed, cultivate abilities to analyze and solve practical problems. Make use of case-based teaching, lecture teaching, seminars, debates teaching, research teaching, academic salon and academic reports.

3. Adhere to principles of both working courses and research papers. It is necessary to grasp the depth of expertise in the discipline and a solid foundation for the theory of the system, and also cultivate ability to do scientific research or take on a special technical work.

4. It is necessary for graduates to attend academic activities and practical activities, to strengthen graduate research ability, self-learning ability, mathematical analysis capability, manipulative ability, expression ability and writing skills.

5. Graduates’ training measures should be flexible and diverse, emphasizing graduates’ initiative and self-consciousness in the training process.

## **八、其他**

### **VIII Others**

1. To examine the effects of instruction, ensure the quality, the items listed in the program must have an assessment. Assessment methods and performance assessment methods need to be clearly stated in the course syllabus.

2. Academic graduates are required to get the credits before thesis proposal. Students are allowed to take some of the other elective courses according to the dissertation after thesis proposal. All the courses shall be completed before the application of dissertation defense.

3. Each discipline shall make specific regulations and requirements in the amount of literature to be read for the students during the study period. Graduates should review more than 40 pieces of literature at home and abroad, in which foreign literature shall be no less than one third.

4. Academic graduates shall report their own learning and research work to the supervisor at least once a month at the course learning stage, and at least twice a month during the paper sessions, which shall be institutionalized and clearly clarified in the programs.

5. This program will enact from 2016.