Educational Plan for Academic Master Candidates

Specialty: Physiology Specialty code: 071003

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
- b. Have a solid theory foundation and systematic and in-depth professional knowledge;
- c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

1. Cardiovascular physiology

2. Stem cell research

3. Neurophysiology

III. Educational Duration

The normative time for full-time academic Master students is 3 years.

IV. Credits Requirement

Credits for Master students with Master degree \geq 36, including course credits \geq 24, and research credits \geq 12.

Total credits		≥ 36
Courses	≥ 24 credits, including credits for all English courses≥2, international courses≥2	Compulsory public courses ≥ 5 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Dialectics of Nature: 1 credit ✓ Foreign language for postgraduate students: 2 credits Optional public courses ≥ 1 credit: ✓ Social science, science/engineering, or other: 1 credit Discipline basic courses and professional courses ≥ 18 credits: ✓ 1st-level discipline basic courses: 8 credits (compulsory) ✓ 2nd-level discipline basic courses: 4 credits (restricted optional) ✓ Professional courses for postgraduate students: 4 credits (optional) ✓ Cross 1st-level disciple courses: 2 credits (optional) No credit for make-up courses and other optional courses, grades only.
Research	≥12 credits	Literature review and thesis proposal: 1 credit Participation in academic conferences: 1 credit Master dissertation: 10 credits

C	ourses	Course	Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	
	Compulsory public courses	408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at the
		411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	postgraduate phase)
			Optional public courses		1			
	1st-level discipline basic courses	510.500	Medical Statistics	54	3	Autumn	School of Public Health	
		510.512	Fundamental Immunology (All English curse)	36	2	Autumn	School of Basic Medicine	Compulsory
		510.509	Neural Damage, Regeneration and Repair (International course)	32	2	Autumn	School of Basic Medicine	≥8 credits (at the postgraduate
Degree		510.520	Methods in Cardiovascular Pharmacology	72	4.5	Autumn	School of Basic Medicine	phase)
		510.504	Medical Molecular Biology (First class international course)	40	2.5	Autumn	School of Basic Medicine	
		510.536	Latest Methods and Techniques in Neuroscience (International course)	36	2	Spring	School of Basic Medicine	
	2nd-level discipline	510.518	Experimental Techniques in Molecular Biology	40	2.5	Autumn	School of Basic Medicine	Restricted optional ≥ 4
	basic courses	510.514	Modern Immunohistochemical Techniques (All English course)	32	2	Autumn	School of Basic Medicine	credits (at the postgraduate phase)
		510.528	Fundamental Ultramicro Pathology (All English course)	20	1	Autumn	School of Basic Medicine	
	Optional professional	510.535	Guidance and Application of Bioinformatics	40	2	Spring	School of Basic	≥ 4 credits

	courses for						Medicine	
	postgraduat e students	510.502	Advances in Physiology (All English course)	36	2	Autumn	School of Basic Medicine	
		510.509	Neural Damage, Regeneration and Repair (All English course; International course)	32	2	Autumn	School of Basic Medicine	
	Cross 1st-level discipline courses	510.507	Preclinical and Clinical Evaluation of New Drug	16	1	Autumn	School of Basic Medicine	≥ 2 credits
		510.542	Principle of Viral Transgenic Techniques	32	2	Autumn	School of Basic Medicine	≥ 2 credits
Non-	Make-up	510.512	Fundamental Immunology (All English course)	36	2	Autumn	School of Basic Medicine	Compulsory
degree	courses	510.504	Medical Molecular Biology (First class International course)	40	2.5	Autumn	School of Basic Medicine	Non-Medicine major undergraduates
			Literature review and thesis proposal (Master)		1			
Research		650.502	Academic Report in academic conferences (Master)		1		School of Basic Medicine	
		650.503	Degree Dissertation (Master)		10			

VI. Specific Requirements for Master Candidates Education

- 1. The education mode for master postgraduate students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.
- 2. Restriction of Cross1st-level discipline courses:

Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.

3. Dissertation Proposal (1 credit) should include:

The source and significance of the topic

Literature review of the research at home and abroad regarding the topic;

The research content, planned research method and technical skills;

The anticipated innovative achievements in theoretical and practical aspects;

Anticipated results;

References

4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results

of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

- 5. Application for doctoral dissertation defense and qualification review The supervisor or the instruction group conducts doctoral dissertation qualification review. Basic requirements of dissertation defense application:
 - (1) get all the required credits;
 - (2) complete the dissertation proposal;
 - (3) complete the dissertation interim report;
 - (4) complete the dissertation writing;
 - (5) pass the experts review both inside and outside the university.

Educational Plan for Academic PhD Candidates

Specialty: Physiology Specialty code: 071003

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
- b. Have a solid theory foundation and systematic and in-depth professional knowledge;
- c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

1. Stem cell research

- 2. Neurophysiology
- 3. Cardiovascular physiology

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PhD and direct PhD students \geq 53.

Category	MD-	PhD and direct PhD students	Commo	on PhD students
Total credits		≥ 53		≥ 29
Courses	≥ 34 credits, including credits for advanced international courses ≥6 (all English courses≥2, first class international courses≥2)	Compulsory public courses ≥ 9 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Chinese Marxism: 2 credits ✓ Dialectics of Nature: 1 credit ✓ Foreign language for postgraduate students: 2 credits ✓ English thesis writing: 2 credits Optional public courses ≥ 1 credit Discipline basic courses and professional courses ≥ 24 credits: ✓ 1st-level discipline basic courses: 8 credits (compulsory) ✓ 2nd-level discipline basic courses: 4 credits (restricted optional) ✓ Professional courses for postgraduate students: 4 credits (optional)	≥10 credits (including credits for all English courses≥2, or first class international courses≥2)	Compulsory public courses ≥ 4 credits: ✓ Chinese Marxism: 2 credits ✓ English thesis writing: 2 credits ✓ Cross 1st-level disciple courses: 2 credits (optional) ✓ Professional course for PhD students: 4 credits (optional)

		 ✓ Cross 1st-level disciple courses: 4 credits (optional) ✓ Professional course for PhD students: 4 credits (optional) No credit for make-up courses and other 	optional courses, grades only.
		Literature review and thesis proposal:	Literature review and thesis proposal: 1 credit
Research	≥19 credits	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit
		Dissertation interim progress report: 1 credit	Dissertation interim progress report: 1 credit
		Academic paper publication: 1 credit	Academic paper publication: 1 credit
		Doctoral dissertation: 15 credits	Doctoral dissertation:

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

C	Courses		Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	
		408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at the
Degree	Compulsory public	411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	postgraduate phase)
	courses		Optional public courses		1			
		408.810	Chinese Marxism	36	2	Autumn	College of Marxism	Compulsory
		411.800	English thesis writing	32	2	Autumn	School of foreign languages	for PhD students ≥ 4 credits

						School of	
	510.804	Advances in Medical	80	4	Autumn	Basic	
		Molecular Biology				Medicine	
1st-level	510.500	Medical Statistics	54	3	Autumn	School of Public Health	Compulsory ≥8 credits (at
basic courses	510.512	Fundamental Immunology (All English curse)	36	2		School of Basic Medicine	the postgraduate phase)
	510.509	Neural Damage, Regeneration and Repair (International course)	32	2		School of Basic Medicine	
	510.536	Latest Methods and Techniques in Neuroscience (International course)	36	2	Spring	School of Basic Medicine	
2nd-level discipline	510.518	Experimental Techniques in Molecular Biology	40	2.5	Autumn	School of Basic Medicine	Restricted optional ≥ 4
basic courses	510.514	Modern Immunohistochemical Techniques (All English course)	32	2	Autumn	School of Basic Medicine	credits (at the postgraduate phase)
	510.528	Fundamental Ultramicro Pathology (All English course)	20	1	Autumn	School of Basic Medicine	
Optional	510.535	Guidance and Application of Bioinformatics	40	2	Spring	School of Basic Medicine	
professional courses for postgraduat	510.502	Advances in Physiology (All English course)	36	2	Autumn	School of Basic Medicine	\geq 4 credits (at the postgraduate
e students	510.509	Neural Damage, Regeneration and Repair (All English course; International course)	32	2	Autumn	School of Basic Medicine	phase)
Professional	510.817	Stem Cell Techniques and Applications	24	1.5	Autumn	School of Basic Medicine	
course for PhD students	510.809	Advanced Functional Analysis: Methods and Techniques	36	2	Autumn	School of Basic Medicine	≥ 4 credits

		510.806	Advanced Neurobiology	80	4	Autumn	School of	
							Basic	
							Medicine	
	-						School of	
		510.515	Theory of Ion Channel and	32	2	Autumn	Basic	
		010.010	Patch Clamp Techniques	32	_	1100011111	Medicine	
							School of	
		510.805	Advanced Medical	80	5	Autumn	Basic	
		210.002	Genetics	00		rataiiii	Medicine	
	Cross						School of	Compulsory
	1st-level	510.533	Cardiovascular	32	2	Autumn	Basic	for PhD
	discipline	310.333	Pharmacology	32		rutumm	Medicine	$students \ge 2$
	courses						School of	credits
		510.542	Principle of Viral	22	,	At		
		510.542	Transgenic Techniques	32	2	Autumn	Basic	
							Medicine	
			Fundamental Immunology	26			School of	Compulsory
Non-		510.512	(All English course)	36	2	Autumn	Basic	for
degree	Make-up						Medicine	Non-Medicine
courses	courses		Medical Molecular				School of	major
		510.504	Biology (First class	40	2.5	Autumn	Basic	undergraduates
			International course)				Medicine	
		650.801	Literature review and		1			
			thesis proposal (PhD)					
			Participation in					
			international academic					
			conferences or					
		650.802	international academic		1			
			conference held in China,					
			and paper submission					
			(PhD)					
		650.803	Dissertation interim		1		School of	
R	esearch		progress report (PhD)				Basic	
		650.804	Academic paper		1		Medicine	
			publication (PhD)					
		650.805	Doctoral dissertation		15			
			(PhD)					
			Literature review and		1			
			thesis proposal (MD)		1			
			Academic Report in					
			academic conferences		1			
			(MD)					
		650.503	Degree Dissertation (MD)	-	10			
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VI. Specific Requirements for PhD Candidates Education

- 1. The education mode for PhD students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.
- 2. Restriction of Cross1st-level discipline courses
 - (1)Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.
 - (2)Cross 1st-level discipline courses selected should be different from the courses completed in the postgraduate phase.
- 3. Dissertation Proposal (1 credit) should include:
 - (1) The source and significance of the topic
 - (2) Literature review of the research at home and abroad regarding the topic;
 - (3) The research content, planned research method and technical skills;
 - (4) The anticipated innovative achievements in theoretical and practical aspects;
 - (5) Anticipated results;
 - (6) References
- 4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

5. Application for doctoral dissertation defense and qualification review

The supervisor or the instruction group conducts doctoral dissertation qualification review.

Basic requirements of dissertation defense application:

- (1) get all the required credits;
- (2) complete the dissertation proposal;
- (3) complete the dissertation interim report;
- (4) publish the required number of papers in journals;
- (5) complete the dissertation writing;
- (6) pass the experts review both inside and outside the university.

Educational Plan for Academic Degree Postgraduates

Specialty: Neurobiology Specialty code: 071006

I. Objectives

- a. Master the basic theories and systematic professional knowledge. Grasp one foreign language and be proficient in professional reading and basic academic writing.
- b. Cultivate rigorous and practical scientific attitude. Grasp the basic methodology and technical skills of scientific research. Possess the ability to undertake scientific research in the specialty field.
- c. Be qualified for teaching of the specialty or related specialties, or engineering work or related scientific managerial work.

II. Research Field:

1. Major Neurological Disease

- 2. Neural Regulation of Sensation
- 3. Molecular Mechanisms of Neural Development
- 4. Pain and Analgesia

III. Program Duration

The duration of full-time academic post-graduate students is 3 years (subject to the approval of the university)

IV. Credits Requirements and Allotment

Total credits \geq 36 (credits for Degree Courses \geq 24; Credits for research \geq 12)

Total Credits		≥ 36 credits					
		Compulsory public courses ≥5 credits:					
		✓ Study on theory and practice of Chinese characteristics: 2					
		credits					
		✓ Dialectics of Nature (science/engineering/medical science)/					
		Marxism and social scientific methodology (liberal arts): 1					
		credit					
	≥24 credits	✓ Foreign Language: 2 credits					
	(including credits for	Optional public courses ≥1 credit					
	advanced	✓ 1st-level discipline basic courses : 8 credits (compulsory)					
Degree Courses	international courses	✓ 2nd-level discipline basic courses: 4 credits (restricted optional)					
	≥4)	✓ Optional professional courses: 4 credits (optional)					
		✓ Cross 1-level discipline courses: 2 credits (optional)					
		No credit for make-up courses or other optional courses, grades only.					
		Literature review and thesis proposal: 1 credit					
Dagaarah	>12 aradita	Participation in public academic lectures: 1 credit					
Research	≥12 credits	Academic Dissertation: 10 credits					

Courses	Course	Course	Hours	Credits	Season	Department	Notes
	code	name	Hours	Cicuits	Scason	Department	Notes

		408.602	Dialectics of nature	18	1	Spring/ Autumn	College of Marxism	
	Compulsory public	408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/ Autumn	College of Marxism	Compulsory at the postgraduate
	courses	411.500	Foreign language (××)	32	2	Spring, Autumn	School of foreign languages	phase≥ 6 credits
			Optional public courses		1			
		513. 500	Health Statistics	36	2	Spring, Autumn	college of Basic Medicine	
	1st-level discipline basic courses	510.504	Medical Molecular Biology (First-Class Course)	40	2.5	Autumn	college of Basic Medicine	
		510.508	Basic Theory of Neurobiology	32	2		college of Basic Medicine	
		510.521	Basic Technology and Method of Neurobiology	32	2		college of Basic Medicine	compulsory ≥8 credits
D		510.514	Modern Histochemical Techniques	32	2		college of Basic Medicine	
Degree Courses		510.518	Experimental Techniques of Molecular Biology (High level course)	40	2.5	Autumn	college of Basic Medicine	
		510.534	Molecular Immunology	36	2		college of Basic Medicine	
		510.537	Skills on Research Design and Scientific Writings	32	2	Autumn	college of Basic Medicine	
	2nd-level	510.503	Medical Biochemistry (First-Class Course)	40	2.5		college of Basic Medicine	Restricted
	discipline basic courses	510.513	Medical Developmental Biology	32	2	Autumn	college of Basic Medicine	optional ≥ 4 credits
		510.515	Ion Channel and Patch Clamp (English Course)	32	2		college of Basic Medicine	
		510.523	Experimental Immunology	44	2.5		college of Basic	

							Medicine	
							college of	
		510.526	Clinical pathophysiology	48	3	Spring	Basic	
							Medicine	
			Namel Decemention and				college of	
		510.509	Neural Regeneration and Repair	32	2	Autumn	Basic	
			Терин				Medicine	
			Advanced Functions of				college of	
	Optional	510.510	Nervous System (English	32	2	Autumn	Basic	
	professional courses		and First-Class Course)				Medicine	≥ 6 credits
			Lectures of Advances in				college of	≥ o credits
	courses	510.525	Neuroscience (First-Class	32	2	Autumn	Basic	
			Course)				Medicine	
							college of	
		510.502	Progress in physiology	32	2	Autumn	Basic	
							Medicine	
Non-							college of	Compulsory for
degree	Make-up						×××	non-×× major
courses	courses						college of	undergraduates
							×××	
		650.501	Literature review and thesis		1			
			proposal				_	
			Academic report in		1			
			academic lectures					
		650.503	Dissertation		10			

VI. Research and Dissertation

Implement in accordance with the related regulations of Huazhong University of Science and Technology.

Educational Plan for Academic PhD Candidates

Specialty: Neurobiology Specialty code: 071003

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

1. Major Neurological Disease

- 2. Neural Regulation of Sensation
- 3. Molecular Mechanisms of Neural Development
- 4. Pain and Analgesia

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PHD and direct PHD students \geq 53.

Cotagony		PhD and direct PhD students	Common PhD students	mon DhD students		
Category	MD-					
Total credits		≥ 53	≥ 29			
		Compulsory public courses ≥ 9	Compulsory p	oublic		
		credits:	courses ≥ 4 cred	its:		
		✓ Study on theory and practice	✓ Chinese			
		of Chinese characteristics: 2	Marxism:	2		
		credits	credits			
		✓ Chinese Marxism: 2 credits	✓ English	thesis		
		✓ Dialectics of Nature	writing:	2		
		(science/engineering/medical	credits			
	\geq 34 credits,	science)/Marxism and social	≥10 credits			
	(including	scientific methodology (liberal	(including			
Courses	credits for	arts): 1 credit	credits for			
credits	advanced	✓ Foreign language for	advanced			
	international	postgraduate students: 2 credits	international			
	courses ≥4)	✓ English thesis writing: 2 credits	courses ≥2)			
		Optional public courses ≥ 1 credit				
		Discipline basic courses and	✓ Cross 1st	-level		
		professional courses ≥ 24 credits:	disciple			
		✓ 1st-level discipline basic	courses:	2		
		courses: 8 credits (compulsory)	credits			
		✓ 2nd-level discipline basic	(optional)			
		courses: 4 credits (restricted	✓ Profession	al		
		optional)	course for	PhD		

		 ✓ Professional courses for postgraduate students: 4 credits (optional) ✓ Cross 1st-level disciple courses: 4 credits (optional) ✓ Professional course for PhD students: 4 credits (optional) 	students: 4 credits (optional)
		No credit for make-up courses and other Literature review and thesis proposal: 1 credit	Literature review and thesis proposal: 1 credit
Research	≥19 credits	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit
		Dissertation interim progress report: 1 credit	Dissertation interim progress report: 1 credit
		Academic paper publication: 1 credit	Academic paper publication: 1 credit
		Doctoral dissertation: 15 credits	Doctoral dissertation: 15 credits

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

C	ourses	Course	Course name	Hours	Credits	Season	Department	Notes	
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism		
Compulsory	408.601	Study on theory and practice of $C\underline{\text{hinese}}$ characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at the		
courses	Degree public courses courses	•	411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	postgraduate phase)
			Optional public courses		1				
		408.810	Chinese Marxism	36	2	Autumn	College of Marxism	Compulsory for PhD	

						School of	students ≥ 4
	411.800	English thesis writing	32	2	Autumn	foreign	credits
						languages	
						college of	
	510.814	Advances in Immunology	80	5	Autumn	Basic	
						Medicine	
		Advances in medical				college of	
	510.804	molecular biology	80	4	Autumn	Basic	
		(English Course)				Medicine	
		Advanced Medical				college of	
1st-level	510.803	Biochemistry (English	80	4	Autumn	Basic	
discipline		Course)				Medicine	
basic						college of	
courses	510.805	Advanced Medical	32	2	Autumn	Basic	
		Genetics				Medicine	
						college of	
	510.807	Advanced Pathophysiology	80	4	Autumn	Basic	
						Medicine	Restricted
	510.816	Dysfunctions of Receptor		college of	optional ≥ 12		
		and Ion Channels and Diseases	36	2	Autumn	Basic	credits (at the
						Medicine	postgraduate
	510.508	Basic theory of Neurobiology			Autumn	college of	phase)
			32	2		Basic	
						Medicine	
	510.514	Modern Histochemical Techniques				college of	
			32	2	Autumn	Basic	
2nd-level						Medicine	
discipline		Theory of Ion Channels				college of	
basic	510.515	and Patch Clamp (English	32	2	Autumn	Basic	
courses		Course)				Medicine	
		Basic technology and				college of	
	510.521	method of Neurobiology	32	2	Autumn	Basic	
		23				Medicine	
		Lectures of Advances in				college of	
	510.525	Neuroscience (First-Class	32	2	Autumn	Basic	
		Course)				Medicine	
		Neural Regeneration and				college of	
Optional professional courses for postgraduat	510.509	Repair (First-Class	32	2	Autumn	Basic	
		Course)				Medicine	
		Advanced Functions of				college of	≥ 4 credits
	510.510	Nervous System (English	32	2	Autumn	Basic	
e students		and First-Class Course)				Medicine	
	510.515	Theory of Ion Channels	32	2	Autumn	college of	
		and Patch Clamp				Basic	

							Medicine	
		£10.507	Skills on Research Design	22	2	A	college of	
		510.537	and Scientific Writings	32	2	Autumn	Basic	
							Medicine	
	Professional						college of	
	course for	510.806	Advanced Neurobiology	80	4	Autumn	Basic	
	PhD						Medicine	≥ 4 credits
	students							
	students							
	Cross							Compulsory
	1st-level		Cross 1st-level discipline					for PhD
			courses (PhD students may					
	discipline		take courses of					students ≥ 2
	courses		postgraduate students)					credits
								Compulsory
Non-								for
degree	Make-up							Non-medical
courses	courses							major
								undergraduates
		650.801	Literature review and					
			thesis proposal (PhD)		1			
		650.802	Participation in					
			international academic					
			conferences or					
			international academic		1			
			conference held in China,					
			and paper submission					
			(PhD)					
		650.803	Dissertation interim		1		college of	
Re	esearch		progress report (PhD)				Basic	
		650.804	Academic paper		1		Medicine	
			publication (PhD)					
			Doctoral dissertation		15			
		650.805	(PhD)					
			Literature review and		1			
		650.501	thesis proposal (MD)		•			
			Academic Report in					
			academic conferences		1			
			(MD)					
		650.503	Degree Dissertation (MD)		10			
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VI. Specific Requirements for PhD Candidates Education

1.The education mode for PhD students employs the supervisor-responsible system, by

establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.

- 2.Restriction of Cross1st-level discipline courses
- (1)Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.
- (2)Cross 1st-level discipline courses selected should be different from the courses completed in the postgraduate phase.
- 3. Dissertation Proposal (1 credit) should include:
 - (3) The source and significance of the topic
 - (4) Literature review of the research at home and abroad regarding the topic;
 - (3) The research content, planned research method and technical skills;
 - (4) The anticipated innovative achievements in theoretical and practical aspects;
 - (5) Anticipated results;
 - (6) References
- 4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

5. Application for doctoral dissertation defense and qualification review

The supervisor or the instruction group conducts doctoral dissertation qualification review.

Basic requirements of dissertation defense application:

- (1) get all the required credits;
- (2) complete the dissertation proposal;
- (3) complete the dissertation interim report;
- (4) publish the required number of papers in journals;
- (5) complete the dissertation writing;
- (6) pass the experts review both inside or outside the university.

Educational Plan for Academic Master Student Candidates

Specialty: Genetics Specialty code: 071007

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Molecular genetics and cytogenetics;
- 2. Epigenetics;
- 3. Recycling endosomal trafficking in epithelia
- 4. Molecular basis of cancer metastasis

5. miRNA and hematonosis

- 6. Tissue engineering bladder;
- 7. Innate immune in inflammation;

III. Educational Duration

The normative time for full-time master students is 3 years.

IV. Credits Requirement

Credits for common postgraduate with Master Degree ≥ 36.

Category		Common Master students		
Total credits		≥ 36		
Courses	≥24 credits,	Compulsory public courses ≥ 5 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Dialectics of Nature : 1 credit ✓ Master student foreign language: 2 credits ✓ The field of public elective courses: ≥ 1 credit ✓ Humanities classes or class or other class of technology: 1 credit Discipline basic courses and professional courses ≥ 24 credits: ✓ 1st-level discipline basic courses: 8 credits (compulsory) ✓ 2nd-level discipline basic courses: 4 credits (restricted optional) ✓ Professional courses for postgraduate students: 4 credits (optional) ✓ Cross 1st-level disciple courses: 2 credits (optional) No credit for make-up courses and other optional courses	ses, grades only	✓.
Research	≥12 credits	Literature review and thesis proposal: 1 credit		

To attend public face-to-face academic report: 1	
Dissertation interim progress report: 1 credit	
academic dissertation: 10 credits	

C	ourses	Course	Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	
	Compulsory	408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at
	public courses	411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	the postgraduate phase)
			Humanities classes or class or other class of technology		1			
		510.503	Medical biochemistry (international)	40	2.5	Autumn	college of basic medicine	
Descrip		510.504	Medical molecular biology (international)	36	2	Autumn	college of basic medicine	Compulsory
Degree	1st-level discipline basic	510.517	Biochemical Experimental technology	40	2.5	Autumn	college of basic medicine	≥8 credits (at the postgraduate
	courses	510.518	Experimental Techniques of Molecular Biology	40	2.5	Autumn	college of basic medicine	phase)
		510.512	Basic Immunology	36	2	Autumn	college of basic medicine	
	2nd-level	510.543	Advances in medical genetics (international)	32	2	Autumn	college of basic medicine	Restricted
	discipline basic	510.514	Modern histochemical tec hniques	32	2	Autumn	college of basic medicine	optional ≥ 4 credits (at the postgraduate
	courses	510.534	molecular immunology	36	2	Spring	college of basic medicine	phase)

		1				ı	I	
		510.506	medical genetics	32	2	Autumn	college of basic medicine	
		510.525	Neuroscience introduction lecture (full English course)	32	2	Autumn	college of basic medicine	
	Optional professional	510.535	Bioinformatics applications and guidelines	40	2	Spring	college of basic medicine	\geq 4 credits (at the
	courses for postgraduat e students	510.513	medical developmental bi ology	32	2	Autumn	college of basic medicine	postgraduate phase)
		510.526	Clinical pathophysiology	48	3	Spring	college of basic medicine	
								≥ 4 credits
	Cross 1st-level discipline courses	516.609	Medical information retrieval and utilization of resources	32	2	Autumn	Institute of medicine and health care management	≥ 2 credits
Non-	Make-up	513.500	health statistics	54	3	Autumn	school of public h ealth	Compulsory for Non-×××
courses	courses	510.522	Modern pathology techniques	32	2	Autumn	college of basic medicine	major undergraduates
		650.501	Literature review and thesis proposal		1			
R	esearch	650.502	In the academic as a academic report at the meeting		1			
		650.503	academic dissertation		10			

VI. The link with the dissertation

- 1. Selection topic to the experiment of subject is in the third semester. Topic selection principle is:
 - (1) According with the professional direction;
 - (2) Agree with mentor research direction; also want to consider the background graduate student;
 - (3) Moderate difficulty, can be completed within 1-2 years;

- (4) With Basic research conditions or graduate funds, can finish the work;
- (5) Under the guidance of tutor, can look up literature and formulate the research plan, according to research subject.

According to the research plan, process preparatory experiments; process opening report and literature re view report, which organized by teacher. Basis of the above work, recompose research plan.

2. Completion the experiment, in the third and fourth semester. Requirements are as follows:

- (1) Regularly report experimental results to the supervisor (or steering group), the instructor (or steering group) need to guide and help to solve problems.
- (2) To report the research progress and own ideas and getting suggesting in order to timely to modify and supplement program.
- 3. Dissertation defense, in fifth or sixth semester. Dissertation opened for only with dissertation defense eligible.

(1) Basic requirements of dissertation defense application:

- a. Compulsory public courses and professional basic course assessment/exam eligible according to the rules.
- b. Specialized courses (medical genetics and professional elective courses), professional foreign language written test have passed.
- c. The eligible should finished the genetic counseling practice, exercise Class, medical genetics basic skills, the translation and review articles of evaluation.
- d. Pass the teaching practice.

Graduate students will be canceled or suspended the dissertation if the evaluation of ideolog y and d morality and of medical ethics is unqualified; One or more each content not eligible (i neluding u nfinished, fail, or evaluate unqualified).

(2) Dissertation defense

Sorting and analyzing the experimental results, refer to the Chinese and foreign literature, put forward its elf ideas, writing the first draft, preparing pro-dissertation defense in the teaching and research office and harvest the opinion. Under the guidance of a mentor, modified and complete the dissertation then apply f or formal dissertation.

Dissertation work is an important part in systemic training graduate student's independent scientific resear ch ability, so the whole process from select a topic to research should pay attention to comprehensive training of graduate students a variety of ability. Therefore, under the guidance of the mentor or guidance Group, all experimental work and should be dealt with by the graduate student completed. Other teachers and technicians can assist appropriately.

Specialty: Genetics Specialty code: 071007

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Membrane protein trafficking in polarized cells
- 2. Epigenetics and cellular signal transduction
- 3. Molecular basis of cancer metastasis

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PHD and direct PHD students \geq 53.

	'HD students ≥ 53.								
Category	MD-	PhD and direct PhD students	Comme	on PhD students					
Total credits		≥ 53	≥ 29						
Courses credits	≥ 34 credits, (including credits for advanced international courses ≥4)	Compulsory public courses ≥ 9 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Chinese Marxism: 2 credits ✓ Dialectics of Nature (science/engineering/medical science)/Marxism and social scientific methodology (liberal arts): 1 credit ✓ Foreign language for postgraduate students: 2 credits ✓ English thesis writing: 2 credits Optional public courses ≥ 1 credit	≥10 credits (including credits for advanced international courses ≥2)	Compulsory public courses ≥ 4 credits: ✓ Chinese Marxism: 2 credits ✓ English thesis writing: 2 credits					
		Discipline basic courses and professional courses ≥ 24 credits: ✓ 1st-level discipline basic courses: 8 credits (compulsory) ✓ 2nd-level discipline basic courses: 4 credits (restricted optional)		✓ Cross 1st-level disciple courses: 2 credits (optional) ✓ Professional course for PhD					

		 ✓ Professional courses for postgraduate students: 4 credits (optional) ✓ Cross 1st-level disciple courses: 4 credits (optional) ✓ Professional course for PhD students: 4 credits (optional) 	students: 4 credits (optional)
		No credit for make-up courses and other Literature review and thesis proposal: 1 credit	Literature review and thesis proposal: 1 credit
Research	≥19 credits	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit
		Dissertation interim progress report: 1 credit	Dissertation interim progress report: 1 credit
		Academic paper publication: 1 credit	Academic paper publication: 1 credit
		Doctoral dissertation: 15 credits	Doctoral dissertation: 15 credits

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

C	ourses	Course	Course name	Hours	Credits	Season	Department	Notes	
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism		
Compulsory	408.601	Study on theory and practice of $C\underline{\text{hinese}}$ characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at the		
courses	Degree public courses courses	•	411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	postgraduate phase)
			Optional public courses		1				
		408.810	Chinese Marxism	36	2	Autumn	College of Marxism	Compulsory for PhD	

							School of	students ≥ 4
		411.800	English thesis writing	32	2	Autumn	foreign	credits
							languages	
							college of	
		510.503	Medical biochemistry	40	2.5	Autumn	basic	
			(international)				medicine	
			Medical molecular biology				college of	
		510.504	(international)	36	2	Autumn	basic	
			(international)				medicine	Compulsory
	1st-level		Biochemical Experimental				college of	≥8 credits (at
	discipline	510.517	technology	40	2.5	Autumn	basic	the
	basic						medicine	postgraduate
	courses		Experimental Techniques				college of	phase)
		510.518	of Molecular Biology	40	2.5	Autumn	basic	
			-				medicine	
							college of	
		510.512	Basic Immunology	36	2	Autumn	basic	
							medicine	
			Advances in medical		_		college of	
		510.543	genetics (international)	32	2	Autumn	basic	
			N. 1. 1. 1. 1. 1.				medicine	
		510 514	Modern histochemical	22	2		college of	Restricted
	2nd-level	510.514	techniques	32	2	Autumn	basic	optional ≥ 4
	discipline basic						medicine college of	credits (at the
	courses	510.534	molecular immunology	36	2	2 Spring	basic	postgraduate phase)
	courses	510.534					medicine	
							college of	
		510.506	medical genetics	32	2	Autumn	basic	
		310.300	medical genetics	32	2	Autuilli	medicine	
			Neuroscience introduction				college of	
		510.525	lecture (full English	32	2	Autumn	basic	
	Optional		course)				medicine	
			medical developmental				college of	
		510.513	biology	32	2	Autumn	basic	≥ 4 credits
	professional	310.313	blology	32		rataiiii	medicine	(at the
	courses for							postgraduate
	postgraduat	510 535	Bioinformatics applications and guidelines	40	2	Spring	college of basic	phase)
	e students					Spring	medicine	F
						-	college of	
		510.526 Clinical pathophy	Clinical pathophysiology	48	3	3 Spring	basic	
		310.320	Chinear pathophysiology	70		Spring	medicine	
		<u> </u>				<u> </u>	modicino	

			Advances in medical				college of	
		510.803	biochemistry	80	4	Autumn	basic	
	Professional		(international)				medicine	
	course for		Advances in medical				college of	
	PhD	510.804	molecular biology	80	4	Autumn	basic	≥ 4 credits
	students		(international)				medicine	
	students						college of	
		510.805	Advanced medical	80	5	Autumn	basic	
			genetics				medicine	
	Cross						Institute of	Compulsory
	1st-level		Medical information				medicine	for PhD
	discipline	516.609	retrieval and utilization of	32	2	Autumn	and health	students ≥ 2
	courses	210.009	retrieval and utilization of resources	32	_	Autumn	care	credits
	courses		resources				management	creates
							school of	Comm. Inc.
N		513.500	health statistics	54	3	Autumn		Compulsory
Non-	Make-up						public health	for
degree	courses	510.522	Modern pathology				college of	Non-medicine
courses	courses		techniques	32	2	Autumn	basic	major
							medicine	undergraduates
			Literature review and		1			
			thesis proposal (PhD)		-			
			Participation in					
			international academic					
			conferences or					
		650.802	international academic		1			
			conference held in China,					
			and paper submission					
			(PhD)					
			Dissertation interim				college of	
Re	esearch	650.803	progress report (PhD)		1		basic	
			Academic paper				medicine	
			publication (PhD)		1			
			Doctoral dissertation					
			(PhD)		15			
			Literature review and					
					1			
			thesis proposal (MD)					
			Academic Report in					
			academic conferences		1			
			(MD)					
			Degree Dissertation (MD)		10	agursa no		

VI. Specific Requirements for PhD Candidates Education

- 1.The education mode for PhD students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.
- 2.Restriction of Cross1st-level discipline courses
- (1)Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.
- (2)Cross 1st-level discipline courses selected should be different from the courses completed in the postgraduate phase.
- 3. Dissertation Proposal (1 credit) should include:
 - (5) The source and significance of the topic
 - (6) Literature review of the research at home and abroad regarding the topic;
 - (3) The research content, planned research method and technical skills;
 - (4) The anticipated innovative achievements in theoretical and practical aspects;
 - (5) Anticipated results;
 - (6) References
- 4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

5. Application for doctoral dissertation defense and qualification review

The supervisor or the instruction group conducts doctoral dissertation qualification review. Basic requirements of dissertation defense application:

- (1) get all the required credits;
- (2) complete the dissertation proposal;
- (3) complete the dissertation interim report;
- (4) publish the required number of papers in journals;
- (5) complete the dissertation writing;
- (6) pass the experts review both inside or outside the university.

Educational Plan for Academic MD Candidates

Specialty: Biochemistry and molecular biology

Specialty code: 071010

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Molecular immunology and molecular oncology
- 2. The molecular mechanism of the pathogenesis of atherosclerosis
- 3. Disease related gene and protein
- 4. Cell signal transduction and disease
- 5.Gene diagnosis and therapy

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PHD and direct PHD students \geq 53.

Category	MD-	PhD and direct PhD students Commo	on PhD students
Total credits		≥ 53	≥ 29
		Compulsory public courses ≥ 9	Compulsory public
		credits:	courses ≥ 4 credits:
		✓ Study on theory and practice	✓ Chinese
		of Chinese characteristics: 2	Marxism: 2
		credits	credits
		✓ Chinese Marxism: 2 credits	✓ English thesis
	\geq 34 credits,	✓ Dialectics of Nature ≥10 credits	writing: 2
	(including	(science/engineering/medical (including	credits
Courses	credits for	science)/Marxism and social credits for	
credits	advanced	scientific methodology (liberal advanced	
	international	arts): 1 credit international	
	courses ≥4)	✓ Foreign language for courses ≥2)	
		postgraduate students: 2 credits	
		✓ English thesis writing: 2 credits	
		Optional public courses ≥ 1 credit	
		Discipline basic courses and	✓ Cross 1st-level
		professional courses ≥ 24 credits:	disciple
		✓ 1st-level discipline basic	courses: 2

		courses: 8 credits (compulsory) 2nd-level discipline basic courses: 4 credits (restricted optional) Professional courses for postgraduate students: 4 credits (optional) Cross 1st-level disciple courses: 4 credits (optional) Professional course for PhD students: 4 credits (optional) No credit for make-up courses and other	credits (optional) ✓ Professional course for PhD students: 4 credits (optional) optional courses, grades only.
	≥19 credits	Literature review and thesis proposal: 1 credit	Literature review and thesis proposal: 1 credit
Research		Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit
		Dissertation interim progress report: 1 credit	Dissertation interim progress report: 1 credit
		Academic paper publication: 1 credit	Academic paper publication: 1 credit
		Doctoral dissertation: 15 credits	Doctoral dissertation: 15 credits

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

C	Courses		Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	Compulsory
Degree	Compulsory public courses	408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/A utumn	College of Marxism	\geq 6 credits (at the postgraduate
		411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign	phase)

						<u> </u>	lan	
			0 1				languages	
			Optional public courses		1			
		408.810	Chinese Marxism	36	2	Autumn	College of	Compulsory
							Marxism	for PhD
		411.000	75 F14 - 22	22	2		School of	students ≥ 4
		411.800	English thesis writing	32	2	Autumn	foreign	credits
							languages	
		×××	×××(advanced				college of	
			international courses)				×××	
		×××					college of	
							×××	
		×××					college of	Compulsory
	1st-level						×××	≥8 credits (at
	discipline	×××					college of	the
	basic						×××	postgraduate
	courses	×××					college of	phase)
							×××	
		×××					college of	
							×××	
		×××					college of	
							×××	
		×××					college of	
							×××	Restricted
	2nd-level discipline	×××					college of	optional ≥ 4
							×××	credits (at the
	basic	×××					college of	postgraduate phase)
	courses						×××	
		×××					college of	
		,,,,,,					×××	
		×××					college of	
	Optional						×××	
	professional	×××					college of	≥ 4 credits
	courses for	,,,,,,					×××	(at the
	postgraduat	×××					college of	postgraduate
	e students	^^^					×××	phase)
	e students	×××					college of	
		^^*			<u> </u>		×××	
	Professional course for MD students						basic	
		510.503	Medical biochemistry	40	2.5	Autumn	medical	
							college	
							basic	≥ 4 credits
		510.504	Medical molecular biology	36	2.5	Autumn	medical	
							college	
		510.517	Biochemistry experiment	40	2.5	Autumn	basic	1

			technology				medical	
							college	
			Molecular biology				basic	
		510.518	experimental technology	40	2.5	Autumn	medical	
			emperational technology				college	
	Cross							Compulsory
	1st-level							for PhD
	discipline							$students \geq 2$
	courses							credits
							college of	Compulsory
Non-	Make-up						×××	for Non-×××
degree	courses						college of	major
courses							×××	undergraduates
	l		Literature review and		,			
			thesis proposal (PhD)		1			
			Participation in					
			international academic					
			conferences or					
			international academic		1			
			conference held in China,					
			and paper submission					
			(PhD)					
			Dissertation interim					
R	esearch	650.803	progress report (PhD)		1		college of	
			Academic paper				×××	
		650.804	publication (PhD)		1			
			Doctoral dissertation					
			(PhD)		15			
			Literature review and					
			thesis proposal (MD)		1			
			Academic Report in					
			academic conferences		1			
					1			
		650.503	(MD)		1.0		_	
			Degree Dissertation (MD)		10			

VI. Specific Requirements for PhD Candidates Education

1.The education mode for PhD students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.

- 2.Restriction of Cross1st-level discipline courses
- (1)Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.
 - (2)Cross 1st-level discipline courses selected should be different from the courses completed

in the postgraduate phase.

- 3. Dissertation Proposal (1 credit) should include:
 - (7) The source and significance of the topic
 - (8) Literature review of the research at home and abroad regarding the topic;
 - (3) The research content, planned research method and technical skills;
 - (4) The anticipated innovative achievements in theoretical and practical aspects;
 - (5) Anticipated results;
 - (6) References
- 4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

5. Application for doctoral dissertation defense and qualification review

The supervisor or the instruction group conducts doctoral dissertation qualification review.

Basic requirements of dissertation defense application:

- (1) get all the required credits;
- (2) complete the dissertation proposal;
- (3) complete the dissertation interim report;
- (4) publish the required number of papers in journals;
- (5) complete the dissertation writing;
- (6) pass the experts review both inside or outside the university.

Educational Plan for Academic PhD Candidates

Specialty: Biochemistry and molecular biology

Specialty code: 071010

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Molecular immunology and molecular oncology
- 2. The molecular mechanism of the pathogenesis of atherosclerosis
- 3. Disease related gene and protein
- 4.Cell signal transduction and disease
- 5.Gene diagnosis and therapy

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PHD and direct PHD students \geq 53.

Total credits ≥ 53 ≥ 29 Compulsory public courses ≥ 9 credits: Compulsory public courses ≥ 9 credits: Compulsory public courses ≥ 4 credits: ✓ Study on theory and practice of Chinese characteristics: ✓ Chinese Marxism: 2 credits ✓ English thesis ✓ Chinese Marxism: 2 credits ✓ English thesis writing: 2 ✓ English thesis writing: 2 Courses (including credits for advanced international courses ≥ 4) Science/engineering/medical scientific methodology (liberal arts): 1 credit Credits for advanced international courses ≥ 1 credits Credits for advanced international courses ≥ 2 Foreign language for postgraduate students: 2 credits Optional public courses ≥ 1 credit ✓ English thesis writing: 2 credits ✓ English thesis writing: 2 credits Optional public courses ≥ 1 credit ✓ Cross 1st-level disciple	Category	MD-	PhD and direct PhD students	Comm	on PhD students
credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Chinese Marxism: 2 credits ✓ Chinese Marxism: 2 credits ✓ Dialectics of Nature (science/engineering/medical science)/Marxism and social science)/Marxism and social scientific methodology (liberal arts): 1 credit advanced international courses ≥ 4) ✓ Foreign language for postgraduate students: 2 credits Optional public courses ≥ 1 credit Discipline basic courses and ✓ Cross 1st-level	Total credits		≥ 53		≥ 29
✓ 1st-level discipline basic courses: 2	Total credits Courses	≥ 34 credits, (including credits for advanced international	≥ 53 Compulsory public courses ≥ 9 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Chinese Marxism: 2 credits ✓ Dialectics of Nature (science/engineering/medical science)/Marxism and social scientific methodology (liberal arts): 1 credit ✓ Foreign language for postgraduate students: 2 credits ✓ English thesis writing: 2 credits Optional public courses ≥ 1 credit Discipline basic courses and professional courses ≥ 24 credits:	≥10 credits (including credits for advanced international	≥ 29 Compulsory public courses ≥ 4 credits: ✓ Chinese Marxism: 2 credits ✓ English thesis writing: 2 credits ✓ Cross 1st-level disciple

	1	, , , , , , , , , , , , , , , , , , ,	
		courses: 4 credits (restricted	✓ Professional
		optional)	course for PhD
		✓ Professional courses for	students: 4
		postgraduate students: 4 credits	credits
		(optional)	(optional)
		✓ Cross 1st-level disciple courses:	
		4 credits (optional)	
		✓ Professional course for PhD	
		students: 4 credits (optional)	
		No credit for make-up courses and other	optional courses, grades only.
			Literature review and
		Literature review and thesis proposal:	thesis proposal: 1
	≥19 credits	1 credit	credit
			Participation in
			international academic
		Participation in international academic	conferences or
		conferences or international academic	international academic
		conference held in China, and paper	conference held in
Research		submission: 1 credit	China, and paper
			submission: 1 credit
			Dissertation interim
		Dissertation interim progress report: 1	progress report: 1
		credit	credit
			Academic paper
		Academic paper publication: 1 credit	publication: 1 credit
			Doctoral dissertation:
		Doctoral dissertation: 15 credits	15 credits

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

C	Courses		Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	
Degree	Compulsory public	408.601	Study on theory and practice of Chinese characteristics	36	2	Spring/A utumn	College of Marxism	Compulsory ≥ 6 credits (at the
courses	courses	411.500	Foreign language (English)	32	2	Autumn, Spring	School of foreign languages	postgraduate phase)
			Optional public courses		1			

1st-level discipline basic	408.810	Chinese Marxism English thesis writing	36	2	Autumn	College of Marxism School of foreign languages	
courses	×××					college of	phase)
2nd-level discipline basic	×××					college of ××× college of	Restricted optional ≥ 4 credits (at the
courses	×××					××× college of ×××	postgraduate phase)
	510.503	Medical biochemistry	40	2.5	Autumn	college of ××× basic medical college	
Optional professional courses for	510.504	Medical molecular biology	36	2.5	Autumn	basic medical college	≥ 4 credits (at the postgraduate
postgraduat e students	510.517	Biochemistry experiment technology	40	2.5	Autumn	basic medical college	phase)
	510.518	Molecular biology experimental technology	40	2.5	Autumn	basic medical college	
Professional course for	510.803	Progress in medical biochemistry(all English courses)	80	4	Autumn	basic medical college	
PhD students	510.804	Progress in medical molecular biology	80	4	Autumn	basic medical college	≥ 8 credits
Cross 1st-level discipline courses							Compulsory for PhD students ≥ 2 credits

							Compulsory
Non-	Make-up						for
degree	_						Nonmedical
courses	courses						major
							undergraduates
		650.801	Literature review and		1		
		030.801	thesis proposal (PhD)		1		
			Participation in				
			international academic				
			conferences or				
		650.802	international academic		1		
			conference held in China,				
			and paper submission				
			(PhD)				
		650.803	Dissertation interim		1		
R	esearch		progress report (PhD)				
		650.804	Academic paper		1		
		630.804	publication (PhD)		1		
		650.805	Doctoral dissertation		15		
		630.803	(PhD)		13		
			Literature review and		1		
		650.501	thesis proposal (MD)		1		
		650.502	Academic Report in				
			academic conferences		1		
			(MD)				
		650.503	Doctoral dissertation(MD)		10		

VI. Specific Requirements for PhD Candidates Education

1.The education mode for PhD students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the PhD candidates.

- 2.Restriction of Cross1st-level discipline courses
- (1)Cross 1st-level discipline courses refer to the other postgraduate courses in the same level. Students are required to attend class and take the examination of the course.
- (2)Cross 1st-level discipline courses selected should be different from the courses completed in the postgraduate phase.
- 3. Dissertation Proposal (1 credit) should include:
 - (9) The source and significance of the topic
 - (10) Literature review of the research at home and abroad regarding the topic;
 - (3) The research content, planned research method and technical skills;
 - (4) The anticipated innovative achievements in theoretical and practical aspects;
 - (5) Anticipated results;
 - (6) References

4. Dissertation interim report

PhD candidates are supposed to report to the instruction group or experts the research results of the degree dissertation, and listen to advice and make revision. The dissertation shall not be started before acceptance of the innovative achievements of the research.

5. Application for doctoral dissertation defense and qualification review

The supervisor or the instruction group conducts doctoral dissertation qualification review.

Basic requirements of dissertation defense application:

- (1) get all the required credits;
- (2) complete the dissertation proposal;
- (3) complete the dissertation interim report;
- (4) publish the required number of papers in journals;
- (5) complete the dissertation writing;
- (6) pass the experts review both inside or outside the university.

Educational Plan for Academic MD Candidates

Specialty: Human Anatomy, Histology and Embryology Specialty code: 100101

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Pathogenesis and treatment of neurodegenrative diseases
- 2. Neural injury and regeneration
- 3. Neuroimmune mechanism and treatment of drug abuse
- 4. Development and diseases
- 5. Cellular and molecular mechanism of endocrine diseases
- 6. Cellular biology of tumor

III. Educational Duration

The normative time for full-time MD students is 3 years.

IV. Credits Requirement

Total credits for common MD students \geq 36, include credits for degree courses \geq 24 and credits for research \geq 12.

Total credits		≥ 36			
	≥ 24 credits,	Compulsory public courses ≥ 5 credits:			
	(including	✓ Study on theory and practice of Chinese characteristics: 2 credits			
	credits for full	✓ Dialectics of Nature (science/engineering/medical science) /Marxism and			
	English	social scientific methodology (liberal arts): 1 credit			
C	teaching	✓ Foreign language for postgraduate students: 2 credits			
Courses	courses	Optional public courses ≥ 1 credit			
credits	courses ≥2	✓ 1st-level discipline basic courses: 8 credits (compulsory)			
	and credits for	✓ 2nd-level discipline basic courses: 4 credits (restricted optional)			
	advanced	✓ Professional courses for postgraduate students: 4 credits (optional)			
	international	✓ Cross 1st-level disciple courses: 4 credits (optional)			
	courses ≥2)	No credit for make-up courses and other optional courses, grades only.			
		Literature review and thesis proposal: 1 credit			
Research	≥12 credits	Academic paper publication: 1 credit			
		Master Dissertation: 10 credits			

C	ourses	Course	Course name	Hours	Credits	Season	Department	Notes
Degree	Compulsory	408.602	Dialectics of Nature	18	1	Spring/A	College of	Compulsory

courses	public					utumn	Marxism	≥ 6 credits (at
	courses	408.601	Study on Theory and Practice of Chinese Characteristics	36	2	Spring/A utumn	College of Marxism	the postgraduate phase)
		411.500	First Foreign Language (English)	32	2	Autumn/ Spring	School of Foreign Languages	
			Optional public courses		1			
		510.530	Practical Technology of Cell Biology	36	2	Spring	School of Basic Medicine	
	Discipline basic courses	510.514	Histochemical and Cytochemical Techniques	32	2	Autumn	School of Basic Medicine	
		510.513	Medical Developmental Biology	32	2	Autumn	School of Basic Medicine	
		516.503	Medical Biochemistry (advanced international courses)	40	2.5	Autumn	School of Basic Medicine	
		510.504	Medical Molecular Biology (advanced international courses)	36	2	Autumn	School of Basic Medicine	≥ 16 credits (according to the requirements of supervisor)
		510.511	Neuropathology (full English teaching courses)	32	2	Autumn	School of Basic Medicine	
	Professional	510.519	Neuroanatomy	33	2	Autumn	School of Basic Medicine	
	course for MD students	510.508	Neurobiological Basis	32	2	Autumn	School of Basic Medicine	
		510.515	Theory of Ion Channel and Patch Clamp Technique (full English teaching courses)	32	2	Autumn	School of Basic Medicine	
		510.518	Experimental Technique of Molecular Biology	40	2.5	Autumn	School of Basic Medicine	
		510.535	Practical Example and Guide of Bioinformatics	40	2	Spring	School of Basic Medicine	
		510.516	Experimental Methodology of	36	2	Spring	School of Basic	

			Adenovirus Genetic Engineering				Medicine	
		510.507	Preclinical and Clinical Evaluation of New Drug	16	1	Autumn	School of Basic Medicine	
		513.500	Medical Statistics	54	3	Autumn	School of Public Health	
	Cross 1st-level discipline courses							
Non- degree courses	Make-up courses							According to the requirements of supervisor
		650.501	Literature Review and Thesis Proposal (MD)		1			
Re	esearch	650.502	Academic Report in Academic Conferences (MD)		1			≥ 12 credits
		650.503	Degree Dissertation (MD)		10			

VI. Research and Degree Dissertation for MD Candidates

- 1. MD candidates should do literature searching at the first semester of October under the guidance of the supervisor and according to the topic, and should complete the topic selection and thesis proposal at the end of the first semester. MD candidates are assessed comprehensively according to the learning and research at the end of the first year.
- 2. The education mode for MD students employs the supervisor-responsible system, by establishing the supervisor-headed instruction group. The supervisor is responsible for the cultivation and assessment of the MD candidates.
- 3. The degree dissertation and degree-granting are executed according to the relevant provisions of school.

Educational Plan for Academic PhD Candidates

Specialty: Human Anatomy, Histology and Embryology Specialty code: 100101

I. Objectives

- a. Possess sound professional ethics, strict, diligent, pragmatic and innovative scientific attitude, and possess the ability to undertake independent scientific research;
 - b. Have a solid theory foundation and systematic and in-depth professional knowledge;
 - c. Make innovative achievements in the specialty field or expertise.

II. Main Research Fields:

- 1. Pathogenesis and treatment of neurodegenerative diseases
- 2. Neural injury and regeneration
- 3. Neuroimmune mechanism and treatment of drug abuse
- 4. Development and diseases
- 5. Cellular and molecular mechanism of endocrine diseases
- 6. Cellular biology of tumor

III. Educational Duration

The normative time for full-time PhD students is 3-5 years. The duration for MD-PhD students is 4-6 years.

IV. Credits Requirement

Credits for common PhD students with Master degree \geq 29. Credits for MD-PHD and direct PHD students \geq 53.

Category	MD-	PhD and direct PhD students Commo	on PhD students
Total credits		≥ 53	≥29
Courses credits	≥ 34 credits, (including credits for advanced international courses ≥4)	Compulsory public courses ≥ 9 credits: ✓ Study on theory and practice of Chinese characteristics: 2 credits ✓ Chinese Marxism: 2 credits ✓ Dialectics of Nature (science/engineering/medical science)/Marxism and social scientific methodology (liberal arts): 1 credit ✓ Foreign language for postgraduate students: 2 credits ✓ English thesis writing: 2 credits Optional public courses ≥ 1 credit	Compulsory public courses ≥ 4 credits: ✓ Chinese Marxism: 2 credits ✓ English thesis writing: 2 credits
		Discipline basic courses and professional courses ≥ 24 credits:	✓ Cross 1st-level disciple
		✓ 1st-level discipline basic	courses: 2

		courses: 8 credits (compulsory) 2nd-level discipline basic courses: 4 credits (restricted optional) Professional courses for postgraduate students: 4 credits (optional) Cross 1st-level disciple courses: 4 credits (optional) Professional course for PhD students: 4 credits (optional) No credit for make-up courses and other	credits (optional) ✓ Professional course for PhD students: 4 credits (optional) optional courses, grades only.
		Literature review and thesis proposal: 1 credit	Literature review and thesis proposal: 1 credit
Research	≥19 credits	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit	Participation in international academic conferences or international academic conference held in China, and paper submission: 1 credit
		Dissertation interim progress report: 1 credit	Dissertation interim progress report: 1 credit
		Academic paper publication: 1 credit	Academic paper publication: 1 credit
		Doctoral dissertation: 15 credits	Doctoral dissertation: 15 credits

Remark: Education plan for students with an equivalent education level is in accordance with the education plan for MD-PhD and direct PhD students. Courses exemption will be granted upon finding conformity with the course exemption provision.

Courses		Course	Course name	Hours	Credits	Season	Department	Notes
		408.602	Dialectics of Nature	18	1	Spring/A utumn	College of Marxism	Compulsory
Degree	Compulsory public courses	408.601	Study on Theory and $ Practice \\$ of Chinese Characteristics	36	2	Spring/A utumn	College of Marxism	\geq 6 credits (at the postgraduate
		411.500	First Foreign Language (English)	32	2	Autumn/ Spring	School of Foreign	phase)

							Languages	
			Optional public courses		1		Zunguuges	
		408.810	Chinese Marxism	36	2	Autumn	College of Marxism	Compulsory
		411.800	English Thesis Writing	32	2	Autumn	School of Foreign Languages	for PhD students ≥ 4 credits
	Discipline basic	510.814	Progress in Immunology (advanced international courses)	80	4	Autumn	School of Basic Medicine	
	courses	510.805	Advanced Genetics in Medicine (full English teaching courses)	32	2	Autumn	School of Basic Medicine	
	Professional	510.803	Advanced Biochemistry in Medicine (full English teaching courses)	80	4	Autumn	School of Basic Medicine	
	course for PhD students	510.804	Progress in Medical Molecular Biology (full English teaching courses)	80	4	Autumn	School of Basic Medicine	≥ 4 credits
	students	510.806	Advanced Neurobiology	80	4	Autumn	School of Basic Medicine	
	Cross 1st-level discipline courses							Compulsory for PhD students ≥ 2 credits
Non- degree courses	Make-up courses							
		650.801	Literature Review and Thesis Proposal (PhD)		1			
Research		650.802	Participation in International Academic Conferences or International Academic Conference Held in China, and Paper Submission (PhD)		1		School of Basic Medicine	
	650.803	Dissertation Interim Progress Report (PhD)		1				
		650.804	Academic Paper Publication (PhD)		1			
		650.805	Doctoral Dissertation (PhD)		15			

650.501	Literature review and thesis proposal (MD)	1		
650.502	Academic Report in Academic Conferences (MD)	1		
650.503	Degree Dissertation (MD)	10		

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