

工程力学

一、培养目标

本专业旨在培养掌握工程结构力学分析基础知识与专业知识、现代力学实验与测试技术,具有科学、工程和人文素养,具备工程结构力学分析和研究应用能力、工程实践和组织协调能力、创新意识和国际视野,能在机械、土木、航空航天和材料等工程领域从事基础研究、工程设计、科技开发、应用研究、运行管理等方面的高级研究型和技术型人才。

二、基本规格要求

本专业毕业学生要求掌握以下十二项核心能力:

1. 工程知识:能够将数学、自然科学、力学基础和专业知识用于解决复杂工程结构力学问题。
2. 问题分析:能够应用数学、自然科学基本原理,并通过文献研究,识别、表达、分析工程结构中的相关力学问题,以获得有效结论。
3. 设计/开发解决方案:能够设计解决复杂工程结构相关力学问题的方案,并能够在设计环节中体现创新意识,考虑法律、健康、安全、文化、社会以及环境等因素。
4. 研究:能够基于科学原理并采用科学方法以及现代力学实验与测试技术,对复杂工程结构的力学问题进行研究,包括设计实验、分析与解释数据、并通过信息综合得到合理有效的结论。
5. 使用现代工具:能够在针对复杂工程结构的力学研究中开发、选择与使用恰当的技术、资源、现代工程工具和信息技术工具,并了解其局限性。
6. 工程与社会:能够评价复杂工程结构相关力学问题解决方案对社会、健康、安全、法律以及文化的影响,并理解应承担的责任。
7. 环境和可持续发展:能够理解和评价针对解决复杂工程结构相关力学问题的工程实践对环境、社会可持续发展的影响。
8. 职业规范:具有人文社会科学素养、社会责任感和工程职业道德。
9. 个人和团队:具有在多学科团队中发挥作用的能力。
10. 沟通:能够就工程问题与业界同行及社会公众进行有效沟通和交流,包括撰写报告和设计文稿、陈述发言、清晰表达或回应指令。并具备一定的国际视野,能够在跨文化背景下进行沟通和交流。
11. 项目管理:理解并掌握工程管理原理与经济决策方法,并能在多学科环境中应用。
12. 终身学习:具有自主学习和终身学习的意识,有不断学习和适应发展的能力。

三、培养特色

工程力学专业面向工程,包括机械、土木、航空航天、化工、车辆、船舶、交通、武器、材料、电子通讯设备、智能机械等行业,适应面宽。其专业特色在于,培养扎实的力学理论功底,掌握现代计算技术和实验技术并熟悉其他主要工程专业的核心技术,建立综合运用专业知识以解决实际问题的能力,初步具备在实际工程设计中的创新能力。

四、学制、毕业基本要求及学位授予

1. 本科基本学制 4 年,弹性学习年限 3—6 年,按照学分制度管理。

2. 工程力学专业学生毕业最低学分数为 165 学分，其中各类别课程及环节要求学分数如下表：

课程类别	通识必修	学门核心	学类核心	专业核心	专业选修	通识选修	集中实践	合计
学分数	27	26	34	14	25	8	31	165

3. 学生修满培养方案规定的必修课、选修课及有关环节，达到规定的最低毕业学分数，并修完规定必修但不记学分的所有课程和环节，德、智、体合格，即可毕业。满足学位授予相关文件要求的，授予工学学士学位。

五、课程设置及学分分布

(一) 通识教育课程〔必修 27+ (6) 学分+选修 8 学分〕

通识教育课程包括必修和选修两部分。通识选修课程按《湖南大学通识选修（文化素质教育）课程方案》实施，通识必修课程如下：

编码	课程名称	学分	备注
GE01101	毛泽东思想和中国特色社会主义理论体系概论	3+ (3)	
GE01039	思想道德修养与法律基础	1.5+ (1.5)	
GE01100	形势与政策	0.5+ (1.5)	
GE01102	中国近现代史纲要	2	
GE01103	马克思主义基本原理（上）	2	
GE01104	马克思主义基本原理（下）	2	
GE01012（-15）	大学英语	8	
GE01088	计算机基本能力测试	0.5	
GE01095	计算机导论与程序设计	2.5	
GE01107（-13）	心理素质与生涯发展	1	
GE01089（-92）	体育	4	

(二) 学门核心 (26 学分)

编码	课程名称	学分	备注
GE03025	高等数学 A (1)	5	
GE03026	高等数学 A (2)	5	
GE03003	线性代数 A	3	
GE03004	概率论与数理统计 A	3	
GE03005	普通物理 A (1)	3	
GE03006	普通物理 A (2)	3	
GE03007 (8)	普通物理实验 A	2	
ME03001	工程化学	2	

(三) 学类核心 (34 学分)

编码	课程名称	学分	备注
ME04017	机械工程图学 (1)	3	
ME04018	机械工程图学 (2)	3	

续表

编码	课程名称	学分	备注
ME04019	工程材料	2	
ME04031	机械设计基础	4	
ME04020	理论力学	4	
ME04021	材料力学	4	
EM04008	弹性力学	4	
ME04032	流体力学	4	
ME04023	热工学基础	3	
ME04026	电工电子学	3	

(四) 专业核心 (14 学分)

编码	课程名称	学分	备注
ME05050	有限元法	4	
ME05051	复合材料力学	3	
ME05052	振动理论	4	
ME05053	实验力学	3	

(五) 选修课 (25 学分)

编码	课程名称	学分	备注
ME06129	专业英语 B	2	<p>学生任选 25 学分, 可在全校范围内跨专业选修 13 学分。</p> <p>学生在校期间参加学科竞赛获奖、公开发表学术论文等经学院认定后可以替代专业选修学分, 但最高不超过 4 个学分, 具体实施办法参照学院相关文件</p>
ME06130	计算方法	2	
ME06148	复变函数与积分变换	2	
ME06078	机械工程导论	1	
ME06131	非线性振动	2	
EM06011	断裂力学	2	
ME06132	塑性力学	2	
ME06133	板壳理论	2	
ME05035	互换性与测量技术基础	2	
ME06134	工程优化设计	2	
ME06135	结构疲劳分析	2	
ME06136	非线性有限元	2	
ME06137	机械制造技术	2	
ME06138	弹性动力学	2	
ME06139	结构力学	2	
ME06140	高等动力学	2	
EM06010	振动测试技术	2	
ME06141	材料力学性能	2	
ME06075	生物力学导论	2	
ME06142	流体输送力学	2	
ME06143	两相流体动力学	2	
ME06144	计算流体力学	2	
ME06145	摩擦学基础	2	
ME06146	现代光测力学	2	
ME06147	增材制造技术	2	
ME06149	微分方程	2	
ME06084	精密与超精密加工	2	

(六) 集中实践 (31 学分)

编码	课程名称	学分	备注
GE01040	军事训练 (含军事理论)		
GE09003	中文写作实训	1	
GE09011	英文写作实训	1	
GE09010	金工实习	4	
GE09021	电工电子实习	2	
ME10044	机械设计基础课程设计	1	
ME10045	力学创新实验	2	
ME10046	创新设计与制作	2	
EM10002	力学建模及 CAE 仿真训练	4	
ME10047	毕业实习	1	
ME10048	毕业设计 (论文)	13	

六、课程体系与毕业生核心能力的关联度矩阵

课程类别	课程名称	工程知识	问题分析	设计/开发解决方案	研究	使用现代工具	工程与社会	环境与可持续发展	职业规范	个人和团队	沟通与交流	项目管理	终身学习
通识必修课程	毛泽东思想和中国特色社会主义理论体系概论							H					
	思想道德修养与法律基础						L	H					
	形势与政策							H					
	中国近现代史纲要								H				
	马克思主义基本原理 (上)								H			H	
	马克思主义基本原理 (下)								H			H	
	大学英语					M					H		
	计算机基本能力测试	M				H							M
	计算机导论与程序设计 (C 模块)	M				H							M
	心理素质与生涯发展						L				M		H
	体育								M				
通识选修课程	文化素质选修 (公选课)								H			M	M
学科核心课程	高等数学 A	H											
	线性代数 A	H	M										
	概率论与数理统计 A	M	H										
	普通物理 A Physics A	H											
	普通物理实验 A				H								
	工程化学	H					L	M					

续表

课程类别	课程名称	工程知识	问题分析	设计/开发解决方案	研究	使用现代工具	工程与社会	环境与可持续发展	职业规范	个人和团队	沟通与交流	项目管理	终身学习
学类核心课程	机械工程图学	H				H	L						
	工程材料	H		M									
	理论力学	H											
	材料力学	H											
	弹性力学	H	M										
	流体力学	H	L										
	热工学基础	H					M	M					
	机械设计基础	H		H		H	M		L				
	电工电子学	H											
专业核心课程	有限元法	H		H			M						
	复合材料力学	M		H			M						
	振动理论	M			H								
	实验力学	H					M						
选修课		M									M	M	
集中实践环节	军事训练								H	M			
	中文写作实训										H		
	英文写作实训										H		
	程序设计训练			H									
	金工实习 A	M					L		L				
	电工电子实习 B	M					L		L				
	机械设计基础课程设计			H		H			L		L		L
	力学创新实验	H			H	H					L		
	创新设计与制作			H		H				M		M	L
	力学建模及 CAE 仿真训练			H		H				M			L
	专业实习				H						M	L	
毕业设计 (论文)	H	H	H		H	M	M		L	H	H	H	

注: 1) 表中教学活动包括: 课程、实践环节、训练等;

2) 课程与毕业生核心能力关联度的高度分别用“H(高)”“M(中)”“L(低)”表示。

七、课程责任教师一览表

序号	姓名	职称	学历学位	专业特长	课程 (专业核心、专业选修、通识选修)
1	罗松南	教授	博士	弹塑性动力学	材料力学 A
2	彭凡	教授	博士	结构非线性静动力学、结构疲劳与断裂、新型材料及其结构的力学行为	理论力学 A、专业英语 (力学)、计算方法
3	文桂林	教授	博士	非线性动力学与控制理论、特种车辆与特种装备设计与开发	振动理论、非线性振动力学

续表

序号	姓名	职称	学历学位	专业特长	课程 (专业核心、专业选修、通识选修)
4	刘又文	教授	硕士	非均质材料位错理论及其应用、断裂力学、数学弹性力学	理论力学 A
5	彭 献	教授	硕士	振动理论及应用、结构动力学、车辆动力学、车桥耦合动力学	理论力学 A、理论力学、结构力学、工程力学
6	肖万伸	教授	博士	固体力学、复合材料损伤、计算力学方法	材料力学 A、结构振动与冲击
7	刘腾喜	教授	博士	计算力学、工程结构计算分析	材料力学 A、计算力学
8	邹伟生	教授	博士	流体力学、多相流体动力学的工程应用, 流体输送与流体机械	流体力学、流体输送力学、固液两相流体力学
9	张见明	教授	博士	弹性力学、振动理论	材料力学、弹塑性力学
10	侯鹏飞	教授	博士	固体力学、智能材料与结构, 新型材料力学, 弹性结构动力学及各种工程结构的设计和分析	材料力学、弹性力学
11	张思进	教授	博士	动力学与控制、非光滑动力学系统的分岔与控制研究、复合材料冲击动力学	理论力学 A、板壳力学
12	黄晓东	教授	博士	复合材料力学	结构力学
13	方棋洪	教授	博士	材料细观力学与位错理论、先进制造力学及其应用、断裂力学理论及其工程应用	理论力学 A、断裂力学
14	符文彬	副教授	博士	非线性结构动力学	理论力学 A、钢筋混凝土结构设计、钢结构
15	戴宏亮	副教授	博士	固体力学、智能材料与结构、新型材料力学、弹性结构动力学	材料力学、塑性力学
16	侯淑娟	副教授	博士	车身结构及材料的抗撞性优化设计、车身 CAE 分析、计算固体力学及其应用、优化设计理论与算法	材料力学、弹塑性力学
17	许文喜	高级工程师	本科、学士	实验应力	实验应力分析、振动测试技术
18	陈 艳	讲师	本科、学士	工程力学	理论力学 A、工程力学、理论力学 A (限选)
19	贺新柱	讲师	硕士	动力学与控制、复合材料	理论力学 A、振动理论、机械振动学
20	胡 绚	讲师	博士	转子动力学、飞行器结构强度与振动、气固耦合动力学	材料力学 A、工程力学、工程结构疲劳分析
21	杨 刚	讲师	博士	爆炸冲击动力学、数值计算方法、无网格方法	理论力学、振动测试技术
22	周加喜	讲师	博士	振动理论及应用、夹层板壳力学、结构优化设计	材料力学、工程力学、工程软件及应用
23	胡徐趣	讲师	博士	生物力学、微流体力学	流体力学、微流体力学、生物力学
24	任毅如	讲师	博士	结构与多学科优化设计	理论力学、复合材料力学

续表

序号	姓名	职称	学历学位	专业特长	课程 (专业核心、专业选修、通识选修)
25	王晓刚	讲师	博士	实验力学、塑性力学	理论力学、实验力学
26	李落星	教授	博士	塑性成形	工程材料
27	刘江南	教授	研究生	机械设计与制造	机械设计
28	黄星梅	教授	研究生	机械工程图学	机械工程图学

八、专业责任教授

序号	姓名	职称	学历学位	专业特长	承担授课课程
1	方棋洪	教授	博士	材料细观力学与位错理论、先进制造力学及其应用、断裂力学理论及其工程应用	理论力学 A、断裂力学

Engineering Mechanics

I . Educational Objectives

This Program aims at the cultivation of senior research-based and technical talents in engineering mechanics field, who have knowledge of science, engineering and humanities, be good at organizing, coordinating and communicating, have awareness of innovation and global vision; and who, with a sound foundation of engineering structural mechanics analysis knowledge, engineering specialization, modern mechanics testing and measurement technologies, a strong ability of research, application and engineering practice; are qualified to undertake the work of fundamental research, engineering design, technology development, application research, operation and management in mechanical, civil, aerospace and materials engineering fields.

II . Graduate Outcomes

Students of this degree will require;

1. Engineering Knowledge: An ability to apply knowledge of mathematics, natural science, mechanics fundamentals and engineering specialization to solve complex engineering structural mechanics problems.

2. Problem Analysis: An ability to identify, formulate, analyze and research literature of complex engineering structural mechanics problems reaching substantiated conclusions using first principles of mathematics and natural sciences.

3. Design/Development of solutions: An ability to design solutions for complex engineering structural mechanics problems with appropriate considerations of legal, public health, safety, cultural, societal, and environmental issues, and show the sense of innovation during design process.

4. Investigation: An ability to investigate complex engineering structural mechanics problems using scientific principles, scientific methods and modern mechanics testing and measurement technologies to provide valid conclusions via the process of experiment design, data analysis and interpretation, and information synthesis.

5. Modern Tool Usage: An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools to complex engineering structural mechanics problems, with an understanding of the limitations.

6. The Engineer and Society: An ability to rationalize and assess societal, health, safety, legal and cultural issues and the consequent responsibilities involving solutions to complex engineering structural mechanics problems.

7. Environment and Sustainability: An ability to understand and evaluate the impact of professional engineering work in the solution of complex engineering structural mechanics problems on sustainability of society and environment.

8. Ethics: Knowledge of humanities and social sciences, a sense of social responsibility and professional ethics.

9. Individual and Team work: An ability to function effectively in diverse and multi-disciplinary

teams.

10. **Communication:** An ability to communicate effectively with the engineering community and general public on engineering problems, such as being able to comprehend and write effective reports, design documentations, make effective presentations, and give and receive clear instructions, with a global vision, can do communication in the multicultural context.

11. **Project Management:** An ability to understand and apply engineering management principles and economic decision-making to managing projects in a multi-disciplinary team.

12. **Lifelong Learning:** An ability to recognize the need and prepare for independent and life-long learning, and to learn and adjust to development.

III. Program Features

Engineering Mechanics is an engineering oriented major with wide applicability; which can be used in mechanical, civil, aerospace, chemical industry, vehicle, ship, transportation, weapons, materials, electronic communication equipment, intelligent machinery and other industries. This program focuses on the cultivation of professionals, who have sound foundation of mechanics theory, master the modern computing technology and experimental technology, familiar with other related core technology, have the ability to solve practical problems, as well as the innovation ability of practical engineering design.

IV. Length of Schooling, Graduation Requirements and Degree Awarded

1. The length of schooling is usually 4 years, but flexibly 3—6 years based on the credit system.
2. The minimum credits for the program are 165, which are distributed as follows:

Category	Credits
General Education Courses	27
Core Courses in General Discipline	26
Core Courses in General Category	34
Core Courses in Specialty	14
Elective Courses in Specialty	25
Elective Courses in General Education	8
Intensive Practicum	31
Total	165

3. The students will graduate when they finish all required courses, elective courses and practices specified in this program to get the required minimum credits, complete other required courses without credits, and qualified in virtue, wisdom and health. Those who satisfy the above requirements will be awarded Bachelor of Engineering.

V. Curriculum and Credit Distribution

1. General Education Courses [required 27+(6) + elective 8 credits]

The general education courses consist of required courses and elective courses. General education electives are designed according to the *Curriculum Design of General Education Electives of Hunan University*. Required general education courses are illustrated in the following table.

Code	Course Title	Credit(s)	Remarks
GE01101	Introduction to Maoism and Theoretical System of Socialism with Chinese Characteristics	3+(3)	
GE01039	Moral Cultivation and Law Basics	1.5+(1.5)	
GE01100	Current Situation and Policies	0.5+(1.5)	
GE01102	Outline of Modern Chinese History	2	
GE01103	Fundamentals of Marxism I	2	
GE01104	Fundamentals of Marxism II	2	
GE01012(-15)	College English	8	
GE01088	Computer Proficiency Test	0.5	
GE01095	Introduction to Computer Science and Programming	2.5	
GE01107(-13)	Psychological Health & Career Planning	1	
GE01089(-92)	Physical Education	4	

2. Core Courses in General Discipline (26 credits)

Code	Course	Credit(s)	Remarks
GE03025	Advanced Mathematics A(I)	5	
GE03026	Advanced Mathematics A(II)	5	
GE03003	Linear Algebra A	3	
GE03004	Probability and Mathematics Statistic A	3	
GE03005	Physics A(I)	3	
GE03006	Physics A (II)	3	
GE03007(8)	Physics Experiments A	2	
ME03001	Engineering Chemistry	2	

3. Core Courses in General Category (34 credits)

Code	Course	Credit(s)	Remarks
ME04017	Mechanical Engineering Graphics I	3	
ME04018	Mechanical Engineering Graphics II	3	
ME04019	Engineering Materials	2	
ME04031	Fundamentals of Mechanical Design	4	
ME04020	Theoretical Mechanics	4	
ME04021	Mechanics of Materials	4	
EM04008	Elastic Mechanics	4	
ME04032	Fluid Mechanics	4	
ME04023	Fundamentals of Thermal Engineering	3	
ME04026	Electrotechnics and Electronics	3	

4. Core Courses in Specialty (14 credits)

Code	Course	Credit(s)	Remarks
ME05050	Finite Element Methods	4	
ME05051	Mechanics of Composite Materials	3	
ME05052	Vibration Theory	4	
ME05053	Experimental Mechanics	3	

5. Elective courses in specialty(25 credits)

Code	Course	Credit(s)	Remarks
ME06129	Professional English B	2	The students are required to select courses to 25 credits, in which 13 credits can be from transdisciplinary studies. The awards in academic competitions and academic paper publications which are recognized by the college, can be used to substitute the credits of elective courses in specialty. The maximum number of substituted credits is four. The measures for the implementations refer to relevant documents of the college.
ME06130	Computing Method	2	
ME06148	Complex Variables Function & Integral Transformation	2	
ME06078	Introduction to Mechanical Engineering	1	
ME06131	Nonlinear Vibration	2	
EM06011	Fracture Mechanics	2	
ME06132	Plastic Mechanics	2	
ME06133	Theory of Plates and Shells	2	
ME05035	Fundamentals of Interchangeability and Measurement Technology	2	
ME06134	Engineering Optimization Design	2	
ME06135	Structure Fatigue Analysis	2	
ME06136	Nonlinear Finite Element Methods	2	
ME06137	Mechanical Manufacture Technology	2	
ME06138	Elastic Dynamics	2	
ME06139	Structural Mechanics	2	
ME06140	Advanced Dynamics	2	
EM06010	Vibration Measurement Technique	2	
ME06141	Mechanical Properties of Materials	2	
ME06075	Introduction to Biomechanics	2	
ME06142	Fluid Transportation Mechanics	2	
ME06143	Two Phase Fluid Dynamics	2	
ME06144	Computational Fluid Mechanics	2	
ME06145	Fundamentals of Tribology	2	
ME06146	Modern Optical Measurement Mechanics	2	
ME06147	Additive Manufacturing Technology	2	
ME06149	Differential Equation	2	
ME06084	Precision and Ultra-precision Machining	2	

6. Intensive Practicum (31 credits)

Code	Course	Credit(s)	Remarks
GE01040	Military Training (Military Theory included)	0	
GE09003	Chinese Writing Training	1	
GE09011	English Writing Training	1	
GE09010	Metal Working Practice	4	
GE09021	Electrical Engineering Practice	2	
ME10044	Course Design of Mechanical Design	1	
ME10045	Mechanics Innovative Experiment	2	
ME10046	Innovative Design and Manufacture	2	
EM10002	Mechanics Modeling & CAE Simulation	4	
ME10047	Graduate Internship	1	
ME10048	Graduate Design (Thesis)	13	

VI. Curriculum and Professional Competency Profiles

Category	Course	Engineering Knowledge	Problem Analysis	Design/ Development Solution	Investigation	Modern Tool Usage	The Engineering and Society	Environment and Sustainability	Ethics	Individual and Team work	Communication	Project Management	Lifelong Learning
General Education Courses	General Introduction to Mao Zedong Thought and Socialist Theory with Chinese Characteristics							H					
	Morals & Ethics & Fundamentals of Law						L	H					
	Current Affairs and Policy							H					
	Survey of Modern Chinese History								H				
	Basic Theory of Marxism (I)								H			H	
	Basic Theory of Marxism (II)								H			H	
	English										H		
	Basic Computer Skills Test	M											M
	Introduction to Computer Technology and Programming (C module)	M					H						M
	Psychological Diathesis and Career Development											M	H
	Physical Education									M			
	Electives in Cultural and Quality Education (common elective courses)									H		M	M

Elective Courses in General Education

Cont

Category	Course	Engineering Knowledge	Problem Analysis	Design/ Development Solution	Investigation	Modern Tool Usage	The Engineering and Society	Environment and Sustainability	Ethics	Individual and Team work	Communication	Project Management	Lifelong Learning
	Military Training								H	M			
	Chinese Writing Training										H		
	English Writing Training										H		
	Programming Training			H									
	Metal Working Practice A	M					L		L				
	Electrical Engineering Practice B	M					L		L				
Intensive Practicum	Course Design of Mechanical Design			H		H			L		L		L
	Mechanics Innovative Experiment	H			H	H					L		
	Innovative Design and Manufacture			H		H				M		M	L
	Mechanics Modeling & CAE Simulation			H		H				M			L
	Specialized Practice				H						M	L	
	Graduate Design (Thesis)	H	H	H		H	M	M		L	H	H	H

Note: 1) The teaching activities in this table include: curriculum, practice and training, etc. ;

2) The correlation between curriculum and professional competence is ranged by "H (high)" "M (medium)" and "L (low)".

VII. Curriculum-responsible Teachers

No.	Name	Title	Academic Degree	Professional Expertise	Course
1	Luo Songnan	Professor	Doctor	Elastic-plastic Dynamics	Material Mechanics A
2	Peng Fan	Professor	Doctor	Structural Nonlinear Statics and Dynamics, Structural Fatigue and Fracture, Mechanical Behavior of New Materials and Structures	Theoretical Mechanics A, Professional English (Mechanics), Computing Method
3	Wen Guilin	Professor	Doctor	Nonlinear Dynamics and Control Theory, Design and Development of Special Vehicle and Special Equipment	Vibration Theory, Nonlinear Vibration Mechanics
4	Liu Youwen	Professor	Master	Dislocation Theory of Heterogeneous Materials and Its Application, Fracture Mechanics, Mathematical Elasticity	Theoretical Mechanics A
5	Peng Xian	Professor	Master	The Theory and Application of Vibration, Structural Dynamics, Vehicle Dynamics, Vehicle Bridge Coupling Dynamics	Theoretical Mechanics A, Theoretical Mechanics, Structural Mechanics, Engineering Mechanics
6	Xiao Wanshen	Professor	Doctor	Solid Mechanics, Composite Material Damage, Computational Mechanics	Material Mechanics A, Structural Vibration and Impact
7	Liu Tengxi	Professor	Doctor	Computational Mechanics, Engineering Structure Analysis	Materials Mechanics A, Computational Mechanics
8	Zou Weisheng	Professor	Doctor	Engineering Application of Fluid-mechanics and Multiphase Fluid Dynamics, Fluid Delivery and Fluid Machinery	Fluid Dynamics, Fluid Transportation Mechanics, Solid-liquid Two-phase Fluid Dynamics
9	Zhang Jianming	Professor	Doctor	Elastic Mechanics, Vibration Theory	Materials Mechanics, Elastic Plastic Mechanics
10	Hou Pengfei	Professor	Doctor	Solid Mechanics, Intelligent Materials and Structures, New Materials Mechanics, Elastic Structural Dynamics, Design and Analysis of Various Engineering Structures	Materials Mechanics, Elastic Mechanics
11	Zhang Sijin	Professor	Doctor	Dynamics and Control, Bifurcation and Control for Non Smooth Dynamical Systems, Composite Materials Impact Dynamics	Theoretical Mechanics A, Shells Mechanics
12	Huang Xiaodong	Professor	Doctor	Mechanics of Composite Materials	Structural Mechanics
13	Fang Qihong	Professor	Doctor	Materials microscopic Mechanics and Dislocation Theory, Advanced Manufacturing Mechanics and Its Application, Fracture Mechanics Theory and Its Engineering Application	Theoretical Mechanics A, Fracture Mechanics

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No.	Name	Title	Academic Degree	Professional Expertise	Course
14	Fu Wenbin	Associate Professor	Doctor	Nonlinear Structural Dynamics	Theoretical Mechanics A, Reinforced Concrete Structure Design, Steel Structure
15	Dai Hongliang	Associate Professor	Doctor	Solid Mechanics, Intelligent Materials and Structures, New Materials Mechanics, Elastic Structure Dynamics	Materials Mechanics, Plastic Mechanics
16	Hou Shujuan	Associate Professor	Doctor	Crashworthiness Optimization Design of Vehicle Body Structure and Material, Vehicle Body CAE Analysis, Computational Solid Mechanics and Its Application, Optimization Design Theory and Algorithm	Material Mechanics, Elastic-plastic Mechanics
17	Xu Wenxi	Senior Engineer	Undergraduate	Experimental Stress	Experimental Stress Analysis, Vibration Measurement Technique
18	Chen Yan	Lecturer	Undergraduate	Engineering Mechanics	Theoretical Mechanics A, Engineering Mechanics, Theoretical Mechanics A (Limited selection)
19	He Xinzhu	Lecturer	Master	Dynamics and Control, Composite Materials	Theoretical Mechanics A, Vibration Theory, Mechanical Vibration
20	Hu Xuan	Lecturer	Doctor	Rotor Dynamics, Aircraft Structural Strength and Vibration, Gas-solid Coupling Dynamics	Material Mechanics A, Engineering Mechanics, Engineering Structure Fatigue Analysis
21	Yang Gang	Lecturer	Doctor	Explosion Impact Dynamics, Numerical Calculation Method, Meshless Method	Theoretical Mechanics, Vibration Measurement Technique
22	Zhou Jiayi	Lecturer	Doctor	The Theory and Application of Vibration, Sandwich Shell Mechanics, Structural Optimization Design	Materials Mechanics, Engineering Mechanics, Engineering Software and Application
23	Hu Xuqu	Lecturer	Doctor	Biomechanics, Micro Fluid Mechanics	Fluid Mechanics, Micro Fluid Mechanics, Biomechanics
24	Ren Yiru	Lecturer	Doctor	Structure and Multidisciplinary Optimization Design	Theoretical Mechanics, Mechanics of Composite Materials
25	Wang Xiaogang	Lecturer	Doctor	Experimental Mechanics, Plastic Mechanics	Theoretical Mechanics, Experimental Mechanics
26	Li Luoxing	Professor	Doctor	Plastic Forming	Engineering Materials
27	Liu Jiangnan	Professor	Postgraduate	Mechanical Design and Manufacturing	Mechanical Design
28	Huang Xingmei	Professor	Postgraduate	Mechanical Engineering Graphics	Mechanical Engineering Graphics

VIII. Program-responsible Professor

No.	Name	Title	Academic Degree	Professional Expertise	Course
1	Fang Qihong	Professor	Doctor	Materialsmicroscopic Mechanics and Dislocation Theory, Advanced Manufacturing Mechanics and Its Application, Fracture Mechanics Theory and Its Engineering Application	Theoretical Mechanics A, Fracture Mechanics

(翻译人:黄晶)