

# Master's Program in Material Procession and Engineering

**Title/degree:** Master of Engineering (M.E)

**Duration:** 2-3 years, full-time

**Start month:** September

**Language of instruction:** English

## I. Program Description

*This project provides international students with frontier knowledge about high performance fiber, composites, low dimensional materials, bio-friendly materials, and training to handle new processing and scientific research techniques, achieving a solid, theoretical understanding of material science and engineering with plenty of attention for the wide range of its applications.*

## II. Why study Material Procession and Engineering at Donghua University?

- 1. Our approach is pragmatic as well as theoretical. We not only expect students to understand and make use of the appropriate tools, but also to develop their own research and products.*
- 2. There are plenty of high profile collaborating companies, where students could do their research with extensive industrial background.*
- 3. Currently, we have more than 1800 students enrolled in the faculty of Materials Science in Donghua University. They can enjoy the advantages of our faculty as there are:*
  - Excellent team of professors and scientific faculties, including 40 professors and 30 associate professors, etc.*
  - Various courses of study, focused on modern topics on polymer chemistry and physics*
  - Excellent international scientific reputation and facilities, together with State Key Laboratory for Modification of Chemical Fiber and Polymer Materials.*

## III. Participating Professors and Junior Scientists



*Prof. Dr. 朱美芳 Zhu Meifang*

*Research Area:*

- 1、 Nanocomposites and Smart Materials*
- 2、 Fiber Forming Theory*
- 3、 Functional fiber and polymer materials*

*[zmf@dhu.edu.cn](mailto:zmf@dhu.edu.cn)*

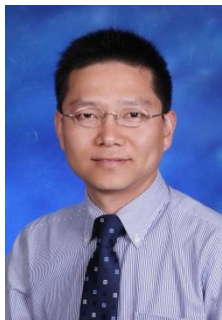


*Prof. Dr. 余木火 Yu Muhuo*

*Research Area:*

- 1、 Fiber reinforced composites application of basic research and product development research.*
- 2、 Inorganic nano-powder and polymer composite spinning and application .*
- 3、 Fiber and fabric surface science and its application.*

*[Yumuhuo@dhu.edu.cn](mailto:Yumuhuo@dhu.edu.cn)*



Prof. Dr. 张耀鹏 Zhang Yaopeng

Research Area:

- 1、High performance artificial animal silk bionic preparation process of condensed state structure regulation
- 2、Complex microfluidic chip preparation technology and microfluidic biomimetic spinning
- 3、Biomedical materials based on silk fibroin

[zyp@dhu.edu.cn](mailto:zyp@dhu.edu.cn)



Prof. Dr. 丁彬 Ding Bin

Research Area:

Preparation and Application of Functional Nanofiber Materials

[binding@dhu.edu.cn](mailto:binding@dhu.edu.cn)



Prof. Dr. 杨曙光 Yang Shuguang

Research Area:

- 1、Macromolecular complexes fibers and films
- 2、Hydrogen bond dissociation and assembly of macromolecules
- 3、Macromolecular metal complexes

[shgyang@dhu.edu.cn](mailto:shgyang@dhu.edu.cn)



Prof. Dr. 徐洪耀 Xu Hongyao

Research Area:

- 1、Preparation and Application of Novel Optical Sensing Probe Materials
- 2、Nanostructured super-capacitor electrode materials
- 3、Preparation of Optical sensing bio-targeting Polymer and Study on Detection and Diagnosis of Cancer Cells

[hongyaoxu@dhu.edu.cn](mailto:hongyaoxu@dhu.edu.cn)



Prof. Dr. 陈志刚 Chen Zhigang

Research Area:

- 1、New inorganic, polymer, organic / inorganic hybrid light and heat conversion materials and applications
- 2、Preparation of Photo-thermal Conversion Film and Its Application in Solar Energy Conversion and Storage
- 3、Design, construction and application of new bio nano-generator

[zgchen@dhu.edu.cn](mailto:zgchen@dhu.edu.cn)



Prof. Dr. 张幼维 Zhang Youwei

Research Area:

- 1、 Green efficient preparation of polymer-based microspheres
- 2、 Solution spun fiber formation, structure and properties

[zhyw@dhu.edu.cn](mailto:zhyw@dhu.edu.cn)



Prof. Dr. 王朝生 Wang Chaosheng

Research Area:

- 1、 Fiber forming mechanism and processing
- 2、 Polymerization Engineering

[cswang@dhu.edu.cn](mailto:cswang@dhu.edu.cn)

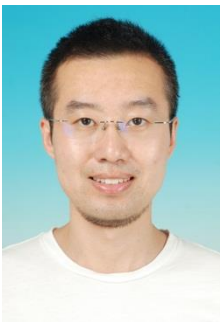


Prof. Dr. 杨建平 Yang Jianping

Research Area:

- 1、 Porous materials
- 2、 Core-shell materials
- 3、 Fiber materials

[jianpingyang@dhu.edu.cn](mailto:jianpingyang@dhu.edu.cn)

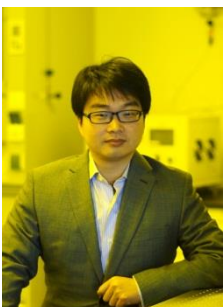


Prof. Dr. 范宇驰 Fan Yuchi

Research Area:

- 1、 Ceramic matrix composites
- 2、 Advanced two-dimensional materials

[yuchifan@dhu.edu.cn](mailto:yuchifan@dhu.edu.cn)



Prof. Dr. 葛郑腾 Ge Zhengteng

Research Area:

- 1、 Dynamic optical materials: nano-optical material, dynamic control assembly and, electrochromic devices;
- 2、 The micro-bionic nanofabrication
- 3、 Functional composites: a flexible energy storage material, high performance coating

[dengteng@dhu.edu.cn](mailto:dengteng@dhu.edu.cn)



Prof. Dr. 巨安奇 Ju Anqi

Research Area:

- 1、 High-performance / erosion-resistant carbon fiber and composite materials.
- 2、 New energy carbon nano hybrid materials and devices.
- 3、 Electrospun organic - inorganic nano-functional fiber material

[anjiju@dhu.edu.cn](mailto:anjiju@dhu.edu.cn)



Prof. Dr. 何勇 He Yong

Research Area:

- 1、 Thermoplastic carbon fiber composite materials
- 2、 High-performance polymer materials
- 3、 Intelligent polymer materials

[yhe@dhu.edu.cn](mailto:yhe@dhu.edu.cn)



Prof. Dr. 石建军 Shi Jianjun

Research Area:

Low Temperature Plasma Physics and Technology

[JShi@dhu.edu.cn](mailto:JShi@dhu.edu.cn)

## IV. Modules

C: compulsory course

E: elective course

CP: credit points

<b>Consolidation Phase</b>		
<b>1st Year</b>		
C/E	Topic	CP
C	Intergrated Chinese I	4
C	Intergrated Chinese II	4
C	China Survey	2
C	Fiber Science	3
C	Textile Manufacturing Technology	3
C	Textile Chemistry	3
C	Bio-medical Materials	3
E	Industrial Textiles	3
E	Composite Materials	3
E	Chinese Costume Culture	3
E	Material Physics and Chemistry	3
E	Polymer Chemistry And Physics	3
E	Textile Physics	3

One needs to obtain 22CPs from compulsory courses and 12CPs from elective courses. These 34CPs should in general be acquired in the 1st year.

E	Applied Linear Regression	3	
E	Clothing Comfort	2	

<b>Scientific Phase</b>			<p><i>During the research phase</i></p> <p><i>First, the signature requirements</i></p> <p><i>To Dong hua University as the first unit, with the first author or second author (but the first author must be the student's mentor) published by the graduate students and mentors signed by the academic papers included in the the statistical range of academic papers. For graduate students co-cultivating at home and abroad, the published papers are based on the first or second units of Donghua University, students first or second signature (but the instructors signed the name of the school or co-cultivation unit) After the inclusion of graduate students in the academic period published academic statistics.</i></p> <p><i>Second, master graduate students</i></p> <p><i>Master's students must publish or take at least one non-summative academic dissertation related to the dissertation in a formally published academic journal before applying for a degree.</i></p>
<b>2<sup>nd</sup> Year</b>	Thesis Proposal	NOV.	
<b>3<sup>rd</sup> Year</b>	Pre-defense	NOV.	
	Concealed Evaluation	DEC.	
	Final Defense	JAN.	

*In case you experience any problems throughout your studies, please contact student advisors. They are ready to help you personally for all situations you might encounter.*



*CHEN Xiaoshuang*

*chenxs@dhu.edu.cn*

*Yu Miaomiao*

*mmyu@dhu.edu.cn*

