2025年计算机科学与技术留学研究生（理工类）培养方案(全日制)

1. Overview of the Program

The disciplines of Computer science and technology of Beijing Institute of Technology root in the Computer Major established in 1958 as one of the first in China. In 1980, the Department of Computer Science and Engineering was formally formed. In 2009, it is restructured into School of Computer Science. The school has made prominent contributions to the development of teaching, research and industry in computer science and technology in China. The school has obtained the authorization of doctoral degree grant on the first-class discipline of Computer science and technology, the key discipline of Beijing on Computer Application Technology, the key discipline on Computer Software, and the Post-doctoral Mobile Stations for Computer Science and Technology.

北京理工大学计算机科学与技术学科源于1958年设立的计算机专业，是我国最早建立的计算机专业之一。1980年成立计算机科学与工程系，2005年成立计算机科学技术学院，2009年更名为计算机学院。学院为中国计算机科学与技术的教学、研究和产业发展做出了突出贡献。学院拥有"计算机科学与技术"一级学科博士点和博士后工作站。

Computer science is the study of how computational processes and devices represent, store, and manipulate information. It involves the development, and analysis of algorithms, which are instructions (or software) that tell a computer how to solve particular problems correctly and efficiently. The program of Computer Science and Technology provides intensive preparation in the concepts and techniques related to the design, programming, research and application of computing systems. Students are provided a deep understanding of both fundamentals and important current issues in computer science and computer engineering so that they may either obtain productive employment or pursue advanced degrees.

计算机科学是研究计算机如何进行信息获取、表示、存储、处理、控制等的理论、原则、方法和技术的学科。计算机科学与技术课程旨在为学生提供全面深入的计算机系统设计、编程、研究和应用等专业理论知识和技能，培养学生对计算机科学和计算机工程的基本原理和当前重要问题产生深刻的理解，使学生具备从事本专业领域技术工作或进一步深造的能力。

This is a full-time degree program, involving both coursework and research projects. It aims at cultivating the high-level specialized personnel with a firm grasp of basic theories and professional knowledge of computer science and technology, with the ability to solve practical problems and undertake the tasks for professional technology. Students will be awarded with the Master/PhD degree after getting required credits. They will participate in research or project in computer science and technology under the guidance of his or her supervisor and complete their graduation thesis based on the projects they have conducted.

研究生采用全日制管理模式，实行在校课程学习和项目研究相结合的培养方式，旨在培养掌握计算机科学技术基础理论和专业知识，能够解决实际问题，承担专业技术任务的高层次专业人才。学生修满学分，在导师的指导下参与计算机科学与技术的研究或项目，并在此基础上完成学位论文的撰写，对符合要求的学位申请人将被授予硕士/博士学位。

2. Training Target

The target is to train high-level innovative talents who have a good knowledge of international perspective, with the ability of spreading Chinese and foreign cultures occupied, so that to bring international graduate students into full play as a cultural bridge.
培养具有良好的国际视野，具有传播中外文化能力的高层次创新人才，充分发挥国际研究生作为文化桥梁的作用。

3. Length of Schooling

The basic length of schooling for master students is 2 years. In principle, students should complete the courses in the first academic year. Thesis work time should not be less than one year. The maximum length of study for master students is extended by 0.5 years on the basis of 2 years.

The basic length of schooling for Ph.D. students is 4 years. In principle, students should complete the courses in the first academic year. Thesis work time should not be less than three years. The maximum length of study for Ph.D. students is extended by 2 years on the basis of 4 years.
硕士生的基本修业年限为2年。原则上，硕士生应在第一学年完成课程。论文工作时间不得少于一年。硕士生的最长学习年限在2年的基础上延长0.5年。
博士生的基本修业年限为4年。原则上，博士生应在第一学年完成课程。论文工作时间不得少于三年。博士生的最长学习年限在4年的基础上延长2年。

4. Curriculum and Credits Requirements

课程类别	课程代码	课程名称	学时	学分	开课学期	是否必修	课程层次	备注
公共课 硕士至少14分 博士至少14分	3700005	（英）基础汉语Ⅰ	96	6	第一学期	必修	硕士博士	
	3700006	（英）基础汉语Ⅱ	96	6	第二学期	必修	硕士博士	
	3700002	（英）中国概况	32	2	第一学期	必修	硕士博士	
基础课 硕士至少2分 博士至少2分	1701002	（英）矩阵分析	32	2	第一学期	选修	硕士	
	1701004	（英）近代数学基础	32	2	第一学期	选修	博士	
学科核心课 硕士至少2分 博士至少2分	0701001	（英）计算机科学与技术前沿	32	2	第一学期	必修	硕士	
	0701004	（英）机器学习与知识发现	32	2	第二学期	必修	博士	
	8001204	（英）高级人工智能导论	32	2	第一学期	选修	博士	
专业选修课 硕士至少6分 博士至少2分	0701002	（英）计算理论	32	2	第二学期	选修	硕士	
	0701003	（英）高级操作系统	32	2	第一学期	选修	硕士	
	0701006	（英）Web挖掘	32	2	第一学期	选修	博士	
	0701007	（英）算法与算法复杂性理论	32	2	第二学期	选修	博士	
	0701008	（英）社交网络分析	32	2	第二学期	选修	硕士	
	0701010	（英）内容管理与数字图书馆技术	32	2	第一学期	选修	硕士	
	0701011	（英）无线网络与移动计算	32	2	第二学期	选修	硕士	
	0701014	（英）高级计算机网络	32	2	第一学期	选修	硕士	
	8001001	（英）AIGC创新设计	32	2	第二学期	选修	硕士	
	8001203	（英）高级算法	32	2	第一学期	选修	博士	
	8001205	（英）大图数据分析	32	2	第一学期	选修	硕士	
	8001206	（英）模式识别与神经网络	32	2	第二学期	选修	硕士	

Notes：

Public Course（公共课程）

(1) Chinese Language: Set by International Students Center of BIT. All international students must take this compulsory course.

《基础汉语》： 由北京理工大学留学生中心开设。所有留学生必须选修。

(2) Outline of China: Set by International Students Center of BIT. All international students must take this compulsory course.

《中国概况》： 由北京理工大学留学生中心开设。所有留学生必须选修此必修课。

硕士总学分不低于24 博士总学分不低于20 本直博总学分不低于30

5. Practice Part

1. Academic Activity (1 credit)

International Graduate Students need to participate in academic activities, academic lectures and academic conferences of their own fields. Giving oral speeches on academic conferences, whether on or off campus, are highly recommended.

2. Innovative Practice (1 credit)

International Graduate Students should take scientific research training and social practices during their training period, which should be carried-out and evaluated by supervisors.

1. 学术活动（1学分）

国际研究生需要参加本领域的学术活动、学术讲座和学术会议。建议在校内或校外学术会议上进行口头演讲。

2. 创新实践（1学分）

留学生在学习期间应进行科研训练和社会实践，并由导师负责组织实施和考核。

6. The Dissertation Related Work

1. Ph.D. students' qualification examination (for Ph.D. students)；2. Literature Review & Opening Report；3. Mid-Term Evaluation (for Ph.D. students)；4. Pre-defense of doctoral thesis；5.Thesis Defense；6. Degree Conferment.

This discipline awards Master's Degree of Science or Doctor's Degree of Philosophy to the applicants who meet the requirements.

More details can be found in Regulations of Training Procedures for International Graduates of BIT, Regulations of Dissertation Pre-Defense for Ph.D. Students of BIT and Implementation Regulations on Academic Degree Conferrals of BIT.

1. 博士资格考核（博士生）;2. 文献综述与开题报告;3. 中期检查（博士生）;4. 博士论文预答辩;5. 论文答辩；6. 学位申请。

本学科对符合要求的硕士学位申请人或博士学位申请人分别授予工学硕士或工学博士学位。

具体要求见《北京理工大学留学研究生培养环节实施办法》、《北京理工大学博士学位论文预答辩细则》、《北京理工大学学位授予工作细则》。

Time nodes of relevant procedure（相关环节时间节点要求）

The Dissertation Related Work 学位论文相关工作	Master 硕士	Ph.D. 博士
Ph.D. students'qualification examination 博士资格考核	——	One year after the doctoral stage 博士阶段一年后

Literature Review& Opening Report 文献综述与开题报告	Before week 1 of the 3rd semester 第三学期第一周（含）前	Before week 1 of the 5th semester 第五学期第一周（含）前
Mid-Term Evaluation 中期检查	——	Before week 1 of the 7th semester 第七学期第一周前
Dissertation Pre-Defense 论文预答辩	——	Before Review 论文评阅送审前完成
Dissertation Defense 论文答辩	At least 9 months after the Opening Report 距离开题至少9个月	At least 18 months after the Opening Report 距离开题至少18个月
Degree Application 学位申请	The application should be raised in a certain time after the Dissertation Defense 答辩后在规定时间内提出申请	