Consultation of opinions from external experts

1: (Deng Huiping) Hunan City University Undergraduate Major Training Program External Expert Opinion Form

Attachment 6:
Hunan City University 2021 Undergraduate Major Training Program External Expert Opinion Form

专业名称（代码）	给排水科学与工程（081003）		
专家姓名	邓慧萍	学科/专业	市政工程/给排水科学与工程
职称/职务	教授/副院长	联系电话	13311875226
工作单位	同济大学		
评审内容	1.专业培养方案对人才培养的目标定位、培养规格与培养要求是否相适应； 2.通识教育、学科基础和专业课等课程体系设置是否符合国标要求，是否科学合理； 3.课程体系的设置是否反映学科交叉融合，反映社会和行业需求新变化，体现出专业人才培养特色； 4.实践环节的安排是否合理，是否有利于培养学生的实践能力和创新能力； 5.通识教育课程、学科基础课和专业课程的学分设置、学期安排等是否符合标准要求； 6.专业培养方案的其它相关内容。		
评审意见	校外专家评审意见与建议： 湖南城市学院给排水科学与工程专业 2021 级人才培养方案，符合本专业的国家标准、专业规范和专业评估论证要求。培养目标、毕业要求明确，符合学校的办学定位。毕业要求覆盖工程教育认证的基本要求，课程设置合理，能支撑毕业要求和培养目标的达成。 培养方案总体合理，可以执行。 有如下修改建议，供参考！ 1.“ 二、毕业生能力要求”中的 12 条及其二级指标建议有的地方再具体些，如：“1.2 能够将自然科学知识……”建议将自然科学知识用物理、化学、生物等描述。 2. “三、专业特色”：“…….培养城市建设领域高素质应用型人才。”建议改 ……培养城镇建设……. 3. 课程设置方面： 1）选修课中“固体废弃物处理与处置”课程名建议改为“城市垃		

	"Garbage disposal," consistent with the textbooks and courses recommended by the Teaching Guidance Committee.
	2) The elective courses for self-development must not be less than 4 credits, among which the limited elective courses are already
	I have 4 credits, can I not choose any other courses?
	3) Courses for independent development include cultural quality education and cross-disciplinary elective courses. If students only
	Choosing elective courses means that cultural quality education and interdisciplinary courses cannot be implemented
	In the self-development courses, is "Elective Course 1, choose one" a mandatory selection of one course?
Evaluate	It is recommended to state the course selection requirements more clearly
Examine	5) The distribution of class hours in the "2. Semester Course Schedule" is not very even, and the class hours in the fourth academic year are relatively few; 6) In Table 10-2, how can students who do not choose the elective courses meet the graduation requirements? Suggestion: When setting up the elective course module, consider the achievement of graduation requirements.
meaning see	
see	Expert signature:
	August 31, 2021

(Additional pages may be attached)

2: (Yue Xiuping) Hunan City University Undergraduate Major Training Program External Expert Opinion Form Attachment 6:

Hunan City University 2021 Undergraduate Major Training Program External Expert Opinion Form

Specialty Name (code)	Water Supply and Drainage Science and Engineering			
Expert name	Yue Xiuping		Discipline / Major	Water Supply and Drainage Science and Engineering
Title/Position	Professor	Contact number	13068076599	
Work unit	Taiyuan University of Technology			
Requirements; 6. Other related content of the professional training program. Evaluate Examine Content	1. Whether the professional training program's goals for talent development, training specifications, and training requirements are compatible; 2. Does the curriculum system of general education, subject fundamentals, and specialized courses meet national standards and is it scientific? Reasonable; 3. Does the curriculum system reflect the interdisciplinary integration, reflect the new changes in social and industry demands, and embody Characteristics of professional talent training; 4. Is the arrangement of the practical sessions reasonable, and does it contribute to cultivating students' practical and innovative abilities; 5. Are the credit settings, semester arrangements, etc. for general education courses, basic subject courses, and professional courses in accordance with the standards? Standard			

Evaluate	Opinions and suggestions from external expert review:
	1. In the description of the training objectives, it is suggested to limit the scope of "water systems," such as "urban water systems," to distinguish it from other disciplines like hydraulic engineering
	2. The sub-goals of the training objectives should clearly describe the expected professional abilities of graduates.
	3. Graduation requirements: The content of indicator point 3.2 is incomplete. 4. Professional characteristics: The content is relatively thin and vague. It is recommended to focus on the training objectives and the school's positioning.
Examine	5. Core professional courses: should include foundational courses such as "Hydraulics" and "Biology of Water Treatment."
meaning	6. Main practical teaching components: excluding "College Physics Experiment." It is recommended to add "Water Treatment Biology" experiment, "Engineering Surveying" experiment, etc. 7. Course credit composition: approved according to engineering education accreditation standards. 8. Further optimize the teaching arrangement of the "Curriculum System and Graduation Requirements Support Matrix," such as non-technical indicators. 8, 9 and other technical indicators
see	
	Expert signature:
	September 5, 2021

(Additional pages may be attached)

3: (Gong Liang) Hunan City University Undergraduate Major Training Program External Expert Opinion Form

Attachment 6:
Hunan City University 2021 Undergraduate Major Training Program External Expert Opinion Form

专业名称（代码）	给排水科学与工程 081003		
专家姓名	龚亮	学科/专业	给排水科学与工程
职称/职务	城市建设科科长/高级工程师	联系电话	13637371800
工作单位	益阳市住房和城乡建设局		
评审内容	1.专业培养方案对人才培养的目标定位、培养规格与培养要求是否相适应； 2.通识教育、学科基础和专业课等课程体系设置是否符合国标要求，是否科学合理； 3.课程体系的设置是否反映学科交叉融合，反映社会和行业需求新变化，体现出专业人才培养特色； 4.实践环节的安排是否合理，是否有利于培养学生的实践能力和创新能力； 5.通识教育课程、学科基础课和专业课程的学分设置、学期安排等是否符合标准要求； 6.专业培养方案的其它相关内容。		
评审意见	**校外专家评审意见与建议：** 2021 版培养方案符合《给排水专业论证标准》，可以适应给排水科学与工程领域的发展要求。符合《普通高等学校本科专业类教学质量国家标准》、《普通高等学校本科教育教学审核评估实施方案（2021-2025 年）》等要求，特色明显，对当代大学生而言，能够满足毕业时具备足够的自然科学、社会科学、工程专业的知识以解决给排水科学与工程专业的相关工程问题的能力。符合用人单位对人才培养的需求，做到了立足就业、重视人才、加强创新，重视发展。人才培养应重视对社会责任意识的培养，这是拔尖人才的核心素养。 实践环节的安排合理妥当，从给排水科学与工程领域的不同方向出发，让学生对专业领域的知识有更加深刻的理解，对培养学生的实践动手能力和创新能力有较大的促进作用。建议学校增设 Revit 软件建模的课程，Revit 软件建模是我国建筑行业目前发展、重视的方向，开设这类课程可以使我校学生更具有创新性与行业适应性；建议将《建筑给水排水》、《工程项目管理》等课程的课时增加，		

Examine see meaning	Allowing the course instructors to explain the relevant knowledge in more detail, our students enter after graduation The construction industry accounts for the majority, and currently, building projects in the construction sector still make up a large portion. Additionally, I hope that the school can offer courses on smart water management, as our country's traditional water management is gradually Transformation, upgrading, and offering related courses can promote graduates' transformation and upgrading in the water sector. Adaptability. Review

(Additional pages may be attached)

4: (Qin Hui) Hunan City University Undergraduate Major Training Program External Expert Opinion Form

Attachment 6:
External Expert Opinion Form for the 2021 Undergraduate Program Training Plan of Hunan City University

Specialty Name (code)	Discipline / Major

(You can also turn the page)

Attachment 6:

Hunan City University 2021 Undergraduate Major Training Program External Expert Opinion Form

1. Whether the professional training program's goals for talent cultivation, training specifications, and training requirements are compatible; 2. Whether the curriculum system of general education, subject fundamentals, and professional courses meets national standards and is scientifically reasonable; Does the curriculum system reflect the interdisciplinary integration, reflect the new changes in social and industry demands, and embody the characteristics of professional talent cultivation? 4. Is the arrangement of practical sessions reasonable, and does it contribute to cultivating students' practical and innovative abilities? 5. Do the credit allocation, semester arrangement, and other aspects of general education courses, foundational courses, and specialized courses meet the standard requirements? 6. Other related content of the professional training program. \end{tabular} \\ \hline Evaluate Examine

meaning
see

See &
Opinions and suggestions from external expert review:
The training program for the Water Supply and Drainage Science and Engineering major at Hunan City University, 2021 edition, meets national standards, professional standards, and evaluation requirements, and is suitable for the development needs of the profession.
The 21st edition of the training program should strengthen research and practice on the safe water supply of urban water systems.
The curriculum system of the 21st edition training program is reasonable, able to reflect the interdisciplinary integration and the new changes in social and industry demands. The suggestions for curriculum setting are as follows:
Currently, the construction of new urbanization in our country focuses on the investment and construction of public infrastructure and service support, with water management being an important part. It is recommended that schools offer courses related to smart water management. In addition, the issue of water environment pollution is very serious, and it is suggested that schools offer courses on comprehensive water environment remediation and new water treatment technologies.
Expert signature:

\hline
\end{tabular}

(Additional pages may be attached)

Attachment 6:
Hunan City University 2021 Undergraduate Major Training Program External Expert Opinion Form

Professional name (code)	Water Supply and Drainage Science and Engineering 081003		
Expert name	Xu Shunkai	Discipline / Major	Water Supply and Drainage Science and Engineering
Title /Position	Legal entity / Senior Engineer	Contact number	15111118011
Work unit	Beijing Municipal Engineering Design and Research Institute Co., Ltd. Hunan Branch		
Review Examine Inside Container	1. Whether the professional training program's goals for talent development, training specifications, and training requirements are compatible; 2. Whether the curriculum system of general education, subject fundamentals, and specialized courses meets national standards and is scientifically reasonable; 3. Does the curriculum system reflect the interdisciplinary integration, reflect the new changes in social and industry demands, and embody the characteristics of professional talent cultivation; 4. Is the arrangement of the practical sessions reasonable, and does it contribute to cultivating students' practical skills and innovative abilities; 5. Whether the credit allocation, semester arrangement, and other aspects of general education courses, foundational courses, and specialized courses meet the standard requirements; 6. Other relevant content of the professional training program.		
Evaluate	Opinions and suggestions from external expert review:		
	The 21st edition of the training program can achieve the specified graduation goals for talent cultivation	National standard, specialized Training Specifications Compliant with employment	The requirements for standards and evaluation arguments should be appropriate. The needs cultivated only when students graduate.
Examine	The training objectives of the 21st edition training program should align with social and economic development and industry needs.		
meaning	Wastewater treatment courses Practice sessions never There are more profound internship and practical opportunities in professional knowledge.	It is recommended to strengthen the current environmental specialty direction to benefit the cultivation of students	Understanding of key issues has improved. It is not reasonable or appropriate, allowing students to engage in two-way communication, enabling both teachers and students to have greater capability and innovation.
			Signature:

Record of the Graduate Representative Symposium【Attachment 2.3.1-4】

Hunan City University School of Municipal and Surveying Engineering Water Supply Science and Engineering Major

Minutes of the 2021 Graduates' Symposium and the Seminar on the Revision of the 21st Version of the Undergraduate Program Training Plan

Meeting Summary

Meeting time: June 10, 2021 Meeting location: City Measurement Building Room 320
Meeting agenda: Symposium for the 2021 graduates of the Water Supply and Drainage Science and Engineering program and discussion on the revision of the 2021 undergraduate program training plan
Participants: College leaders, Chi Nianping, representatives of professional course teachers
Meeting Host: Li Yongshuo Meeting Recorder: Chi Nianping

This meeting is aimed at collecting opinions and suggestions from recent graduates regarding the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University. At the meeting, Dean Li Yongshuo first introduced the basic situation of the evaluation preparation work for the Water Supply and Drainage Science and Engineering major, hoping that the graduating students would provide suggestions on the 2021 training program based on their own experiences over the past four years, ultimately forming the following opinions:

1. The training program for the Water Supply and Drainage Science and Engineering major at Hunan City University in 2021 aligns with the school's application-oriented talent training goals and meets the current industry talent demands;

2. It is recommended to increase the class hours for specialized courses in the curriculum system
3. Strengthen the content of internship courses, such as orientation internships, graduation internships, etc.;
4. It is recommended to add a Q&A session for teachers;
5. It is recommended to increase online teaching resources to facilitate self-testing of knowledge mastery and improve learning
6. It is recommended to invite more experts from the drainage and sewage industry to the school for 交流讲座.

Minutes of the 2022 Graduates' Symposium and the Seminar on the Revision of the 21st Version of the Undergraduate Program Training Plan

Meeting Summary
Meeting time: June 15, 2022 Meeting location: City Measurement Building Room 320
Meeting agenda: Symposium for the 2022 graduates of the Water Supply and Drainage Science and Engineering program and discussion on the revision of the 21st version of the undergraduate program training plan
Participants: College leaders, Sheng Jianwu, representatives of professional course teachers
Meeting Host: Rao Ying Meeting Recorder: Sheng Jianwu

This meeting is aimed at collecting opinions and suggestions from recent graduates regarding the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University. During the meeting, Vice Dean Chi Nianping introduced the basic situation of the professional evaluation and certification for Water Supply and Drainage

Science and Engineering, hoping that the graduating students would provide suggestions based on their four years of learning experience regarding the 2021 training program, ultimately forming the following opinions:

1. It is recommended to strengthen the content of internship-related courses, such as orientation internships and graduation internships;
2. It is recommended to start production internships as early as possible, such as from the summer vacation of the second year
3. It is recommended to hold more specialized lectures;
4. It is recommended that professional course teachers increase the number of after-class Q&A and guidance sessions.

Minutes of the Symposium on the Water Supply Science and Engineering Major for the 2023 Graduates of the College of Municipal and Surveying Engineering, Hunan City University, and the Seminar on the Revision of the 21st Version of the Undergraduate Major Training Program

Meeting time: June 12, 2023 Meeting location: City Measurement Building Room 320
Meeting agenda: Symposium for the 2023 graduates of the Water Supply and Drainage Science and Engineering program and discussion on the revision of the 21st version of the undergraduate program training plan
Participants: College leaders, Sheng Jianwu, representatives of professional course teachers

This meeting is aimed at collecting opinions and suggestions from recent graduates regarding the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University. At the meeting, Vice Dean Chi Nianping introduced the basic situation of the evaluation and accreditation of the Water Supply and Drainage Science and Engineering major, which will undergo a re-evaluation in May 2024. It is hoped that all graduating students will provide suggestions based on their four years of learning experience regarding the 2021 training program, ultimately forming the following opinions:

1. From the perspective of curriculum design, it is recommended to strengthen the construction of practical internship courses, such as water engineering construction, water engineering economics and budget estimation, introductory internships, and graduation internships, etc.;

2. It is recommended to hold more academic lectures related to the profession
3. It is recommended to arrange the production internship more reasonably;
4. It is recommended to offer cutting-edge courses in sponge cities, smart water management, and other related fields.

[Attachment 2.3.1-5] Employer Visit and Research Record

Hunan City University School of Municipal and Surveying Engineering Water Supply Science and Engineering Major

Minutes of the employer's visit and research meeting

Meeting Summary
Meeting time: September 10, 2020

Meeting agenda: Research visit to employers in the field of water supply and drainage science and engineering and discussion on the revision of the 21st version of the undergraduate program training plan

Participants:

Hunan City University: Zhang Wei, Zhou Zhengwei, Wang Aihe, Shu Jinkai. Changsha (China Water Affairs) Co., Ltd. Group: Xie Kejun, Chen Hui. Meeting host: Xie Kejun Meeting recorder: Shu Jinkai.

This meeting is to collect opinions and suggestions from employers regarding the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University.

At the meeting, the director of the school's research department, Professor Zhang Wei, the head of the Water Supply and Drainage Science and Engineering program, expressed heartfelt thanks to the company for its long-term support and assistance to the program, and engaged in substantial discussions on the next phase of industry-university-research collaboration, hoping to strengthen cooperative research and development. He also hoped that China Water would continue to provide strong support in areas such as internships and employment. During the research process, employers provided suggestions on the 2021 version of the training program for the Water Supply and Drainage Science and Engineering program, which ultimately formed the following opinions:

1. The training program for the Water Supply and Drainage Science and Engineering major at Hunan City University in 2021 aligns with the school's application-oriented talent training goals and meets the current industry talent demands;

2. It is recommended to strengthen students' understanding of the social cycle of urban water systems, and the automation of water plants is the trend of the future;
3. Strengthen the content of internship courses, such as graduation internships and production internships, allowing more students to enter the production front line for internships;

4. It is recommended to invite senior experts from the base to the school to give lectures and exchanges for students, and to offer some special courses;
5. It is recommended that young teachers come to the base for training.

Meeting minutes of the visit and research on employers for the Water Supply Science and Engineering major at the College of Municipal and Surveying Engineering, Hunan City University

Meeting Summary

Meeting time: July 26-28, 2022
Meeting location: Panhua Construction Group Co., Ltd. Hunan Design Branch (July 26), Huaihua City Natural Resources Planning and Design Survey Institute, Huaihua City Construction Engineering Supervision Co., Ltd., Hunan Construction Engineering No. 7 Co., Ltd

Enterprises such as Siji (July 27-28)
Meeting agenda: Research visit to employers in the field of water supply and drainage science and engineering and discussion on the revision of the 21st version of the undergraduate training program
Participants:
Hunan City University: He Xujuan, Rao Ying, Wang Aihe, Chi Nianping, Sheng Jianwu, etc.

Heads of various companies, representatives from the company and alumni, etc.
Meeting Host: Heads of each company Meeting Recorder: Sheng Jianwu

This meeting is to collect opinions and suggestions from employers regarding the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University.

At the meeting, Principal He Xujuan introduced the breakthrough developments and talent cultivation achieved by the school during the "13th Five-Year Plan" period, hoping that both parties would further deepen cooperation in areas such as the training of young teachers, the cultivation of order classes, the establishment of student professional clubs, student internships, and joint research project tackling. During the research process, employers provided suggestions on the 2021 version of the training program for the Water Supply and Drainage Science and Engineering major, ultimately forming the following opinions:

1. The training program for the Water Supply and Drainage Science and Engineering major at Hunan City University, 2021 version, meets national standards and professional certification standards, aligns with the school's applied talent training orientation, and addresses current industry talent needs;

2. It is recommended that the talent cultivation values of the school align and integrate with the corporate value system
3. It is recommended to enhance communication between both parties and explore practical and feasible new models of school-enterprise cooperation;
4. It is recommended to jointly apply for research projects and jointly train students;
5. It is recommended that schools communicate more with enterprises in curriculum design to cultivate students who better meet social needs.

Attachment 2.3.1-6 Teacher Seminar Minutes

Hunan City University School of Municipal and Surveying Engineering Water Supply Science and Engineering Major
Minutes of the 2021 Undergraduate Program Training Plan Revision and Teacher Symposium

Meeting Summary

Meeting time: May 28, 2020 Meeting location: City Measurement Building Room 320

Meeting agenda: Discussion on the revision of the 2021 undergraduate training program for the Water Supply and Drainage Science and Engineering major
Participants: Wang Bin, Li Yongsuo, Zhou Zhengwei, Wang Aihe, Zhang Chun, Hu Hengzhen, Deng Jie, Wang Caiwen, Zhou Jun, Jiang Haiyan, Deng Yumei, Li Hao
Meeting Host: Wang Bin Meeting Recorder: Zhou Jun

This meeting is aimed at evaluating the 2019 undergraduate training program for the Water Supply and Drainage Science and Engineering major at Hunan City University, and discussing the key directions and revision suggestions of this program in conjunction with the guidance provided by the school for the revised 2021 undergraduate training program.

Professor Li Yongshuo, the dean of the college, requested everyone to discuss the issues existing in the certification application work, emphasizing the need for division of labor and cooperation. Vice Dean Wang Aihe provided a detailed explanation and arrangement regarding the evaluation work. The attending teachers discussed and studied the guiding opinions on the revision of the 2021 training program, ultimately forming the following opinions:
The guiding opinions for the revision of the 2021 training program should highlight the characteristics of the profession more prominently
In the 2021 version of the training program, the training objectives should be clearer and more explicit, and the sub-objectives of the training objectives should be more specific and detailed
The curriculum system should be further adjusted and optimized according to the new training objectives, and how the course arrangement should be adjusted;
(4) How to arrange the longer duration of the production internship, etc.