## Curricular planning for Doctorate-degree program Ph. D. Program in Biochemical and Environmental Technology, Department of Applied Chemistry, Chaoyang University of Technology (applicable to day division students enrolled in 2023)

First Year							Second Year					
First Semester			Second Semester			First Semester			Second Semester			
Subject		Credit		Subject	Hours	Credit	Subject	Hours	Credit	Subject	Hours	Credit
生物醫學專論(一) Special Topics and Research in Biomedical Sciences (I)	3	3	生物醫學專論(二) Special Topics and Research in Biomedical Sciences(Ⅱ)		3	3	生物醫學專論(三) Special Topics and Research in Biomedical Sciences(Ⅲ)	3	3	生物醫學專論(四) Special Topics and Research in Biomedical Sciences (IV)	3	3
化學技術專論(一) Special Topics and Research in Chemical Technology (I)	3	3	化學技術專論(二)		3	3	化學技術專論(三) Special Topics and Research in Chemical Technology (Ⅲ)	3	3	化學技術專論(四) Special Topics and Research in Chemical Technology (IV)	3	3
	6	6			6	6		6	6		6	6
高等有機光譜 Advanced Organic Spectroscopy	3	3	蛋白質體學 Proteomics		3	3	高等代謝工程 Higher Metabolic Engineering	3	3	高等生物統計 Advanced Biostatistics	3	3
高等生物有機化學	3	3	高等中草藥生抗 Advances in H	i erhal Biotechnology	3	3	高等分析化學 Advanced Analytical Chemistry	3	3	高等儀器分析	3	3
進階細胞學技術 Cell Biology Technologies for Advanced Study	3	3	高等有機合成 Advanced Organic Synthesis		3	3	環境物理原理 Environmental Physics Principles	3	3	環境化學原理 Environmental Chemistry Principles	3	3
高等科技寫作與溝通技巧 Advance Technical Writing and Communicating	3	3	高等藥用菇類化 Advanced Rese	之學研究 arch in Medicinal Mushrooms	3	3						
		高等生物化學 Advanced Biochemistry		3	3							
			空氣污染特論	·		3						
			環境生物程序工	-程	3	3						
	12	12			21	21		9	9		9	9
y Requirements	-									•		
Courses		8 Courses 24 Credits (只需修習12學分)										
Elective Courses				Minimum elective 12 Credits								
Recognition limit of credits provided by other departments				0 Credits								
Total Requirement				30 Credits 30 credits (incl. 6 credits on doctorate-degree seeking theses)								
	生物警學專論(一) Special Topics and Research in Biomedical Sciences (1) 化學技術專論(一) Special Topics and Research in Chemical Technology (1) 高等有機光譜 Advanced Organic Spectroscopy 高等生物有機化學 進階細胞學技術 Cell Biology Technologies for Advanced Study 高等科技寫作與溝通技巧 Advance Technical Writing and Communicating  y Requirements  Courses  Courses  On limit of credits provided by uirement	First Semester  Subject Hours 生物醫學專論(一) Special Topics and Research in Biomedical Sciences (I) 化學技術專論(一) Special Topics and Research in Chemical Technology (I) 6 高等有機光譜 Advanced Organic Spectroscopy 高等生物有機化學 3 造階細胞學技術 Cell Biology Technologies for Advanced Study 高等科技寫作與溝通技巧 Advance Technical Writing and Communicating  12  y Requirements  Courses  Courses  on limit of credits provided by othe uirement	First Semester  Subject Hours Credit 生物醫學專論(一) Special Topics and Research in Biomedical Sciences (I) 化學技術專論(一) Special Topics and Research in Chemical Technology (I) 6666 高等有機光譜 Advanced Organic Spectroscopy 高等生物有機化學 33 3  iere and Research in Chemical Technology (I) 6666  高等有機光譜 Advanced Organic Spectroscopy 高等生物有機化學 33 3  iere and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as 等有機光譜 Advanced Organic Spectroscopy and Research in Chemical Technology (I) 6666  as \$4000000000000000000000000000000000000	First Semester  Subject Bours Credit 生物醫學專論(一) Special Topics and Research in Biomedical Sciences (I) 化學技術專論(一) Special Topics and Research in Chemical Technology (I) 6 6 高等有機光譜 Advanced Organic Spectroscopy 高等生物有機化學 造階細胞學技術 Cell Biology Technologies for Advanced Study 高等种技寫作與溝通技巧 Advance Technical Writing and Communicating  可以表现的  Technology Technologies for Advanced Study 高等种技寫作與溝通技巧 Advance Technical Writing and Communicating  Technology Technologies for Advanced Study 高等种技寫作與溝通技巧 Advance Technical Writing and Communicating  Technology (I)  6 6 6 8 第4 物元學 Advanced Organic Spectroscopy 高等种技寫作與溝通技巧 Advanced Biock 空氣污染特論 Special Topics 高等种技寫作與滿種技巧 Advanced Research in Chemical 3 3 高等有機合成 Advanced Organic Spectroscopy 高等种技寫作與溝通技巧 Advanced Research in Chemical 3 3 高等有機合成 Advanced Organic Spectroscopy 高等种技寫作與溝通技巧 Advanced Research in Chemical 3 3 高等特別整理 Advanced Organic Spectroscopy 高等种技寫行成。 高等种技寫行成。 高等种技寫行成。 高等种技寫行成。 高等种及原址 最初的定址 表述的定址 最初的定址 最初的定址 表述的定址 表述的定址 最初的定址 表述的定址	Second Semester   Second Semester   Second Semester	Subject Blours Credit Subject Blours Credit Subject Blours E 生物醫學專論(一) Special Topics and Research in Biomedical Sciences (II) Chew 技術專論(一) Special Topics and Research in Chemical Technology (II) 66 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Subject Nours Credit Subject Nours Credit Subject Nours Credit 生物醫學專論(一) Special Topics and Research in Biomedical Sciences (I) 化學技術專論(一) Special Topics and Research in Chemical Technology (I) 66 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Second Semester    Second Semester	Subject Semester  Second Semester  Sobject So	Second Semester  Second Semester  Second Semester  Second Semester  Second Semester  Second Semester  Subject  Boars Credit  Second Semester  Subject  Boars Credit  Subject  Boars Credit  Special Topics and Research in Biomedical Sciences (II)  Reptain Septial Topics and Research in Chemical Indicated Sciences (II)  Special Topics and Research in Chemical Indicated Sciences (III)  6 6 6 6  8 7 6 6 6 6  8 8 7 6 7 8 8 7 8 7 8 8 8 8 8 8 8 8 8 8	First Senester    Second Senester	First Senester    Second Senester   Second Sene

一、全校性規定:學生需修習並通過「學術研究倫理教育」相關課程後,始得申請學位考試。

二、本系之規定:

<sup>(</sup>一)本系博士生因修業需要,得經指導老師及系主任同意後,修習本系或環管系碩士班課程,並於修習通過後認計畢業學分。(二)本系博士班研究生需依指導教授所屬之研究領域,修習「生物醫學專論」或「化學技術專論」,共需修習4 學期。

<sup>- ·</sup> University-level regulations: Students are required to take and pass "Ethics Education Course" before applying for the entrance exam.

<sup>=</sup> Department regulations:

<sup>(</sup>一)本系博士生因修業需要,得經指導老師及系主任同意後,修習本系或環管系碩士班課程,並於修習通過後認計畢業學分。 (二)本系博士班研究生需依指導教授所屬之研究領域,修習「生物醫學專論」或「化學技術專論」,共需修習4 學期。