**Faculty of Chemical & Energy Engineering**

化学与能源工程学院

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| **BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS**  化学工程荣誉学士学位 | | | | | |
| **Year 1第一学年** | | | | | |
| **YEAR 1: SEMESTER 1** 第一学期 | | | **YEAR 1: SEMESTER 2** 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 | **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SETK 1511 | Industrial Seminar & Profession  行业研讨会及专业 | 1 | SETK 1123 | Mass Balance\*@  质量平衡\*@ | 3 |
| SETK 1523 | Introduction to Engineering  工程概论 | 3 | SETK 1223 | Thermodynamics@  热力学@ | 3 |
| SETK 1533 | Introduction to Computer Programming 计算机程序设计与概论 | 3 | SSCE 1993 | Engineering Mathematics II@  工程数学 II@ | 3 |
| SETK 1213 | Statics @  静力学@ | 3 | SSCK 1623 | Organic Chemistry for Engineering 有机化学工程 | 3 |
| SETK 1111 | Engineering Drawings  工程图纸 | 1 | SSCK 1831 | Organic Chemistry Practical  有机化学 | 1 |
| SSCE 1693 | Engineering Mathematics I@  工程数学I @ | 3 | UHLM 1012 | Malay Language for Communication 2 (for International Students)  马来语交流（国际学生） | 2 |
| ULRS 1032 | Integrity And Anti-Corruption Courses 廉政与反腐败课程 | 2 |  |  |  |

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| **Year 2 第二学年** | | | | | |
| YEAR 2: SEMESTER 1 第一学期 | | | YEAR 2: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SEEU 2003 | Electrical Technology  电气技术 | 3 | SETK 2253 | Chemical Engineering Thermodynamics 化学工程热力学 | 3 |
| SSCE 1793 | Differential Equations  微分方程 | 3 | SETK 2313 | Transport Processes\*  运输过程\* | 3 |
| SETK 2133 | Energy Balance\*@  能量平衡\*@ | 3 | SETK 2721 | Fluid Mechanics Laboratory  流体力学实验 | 1 |
| SETK 2233 | Fluid Mechanics  流体力学 | 3 | SETK 2543 | Numerical Method & Optimization\* 数值方法与优化\* | 3 |
| SETK 2243 | Materials Engineering  材料工程 | 3 | UHLB 2122 | Professional Communication Skills 1专业沟通技巧 1 | 2 |
| SETK 2711 | Thermodynamics and Material Eng. Laboratory热力学与材料工程实验 | 1 | ULRS 1022 | Philosophy and Current Issues  哲学与时事 | 2 |
| ULRF 2\*\*2 | Service Learning and Community  Engagement Elective 社区服务与学习 | 2 | \*\*\*\* \*\*\*3 | Free Elective  自由选课 | 3 |
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| **Year 3 第三学年** | | | | | |
| YEAR 3: SEMESTER 1 第一学期 | | | YEAR 3: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SSCK 1203 | Analytical Chemistry for Engineering 分析化学工程 | 3 | SETK 3564 | Process Control &  Instrumentation\*过程控制与仪表 | 4 |
| SSCK 1891 | Analytical Chemistry Practical  实用化学分析 | 1 | SETK 3334 | \*Unit Operation & Industrial  Processes单元操作和工业过程 | 4 |
| SETK 3263 | Chemical Reaction Engineering  化学反应工程 | 3 | SETK 3741 | Separation Processes  Laboratory I 分离工艺实验一 | 1 |
| SETK 3323 | Separation Processes\*  分离流程 | 3 | SETK 3812 | Undergraduate Project I\*\*  本科生项目I\*\* | 2 |

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| SETK 3413 | Pollution Control Engineering  污染控制工程 | 3 | SETK 3343 | Engineering Economics and  ProjectManagement工程经济与工程管理 | 3 |
| SETK 3731 | Pollution Control and Reaction  Laboratory污染控制与反应实验室 | 1 | ULRS 3032 | Entrepreneurship and Innovation  创业与创新 | 2 |
| UHL\* 1112 | Communication in Foreign Language Elective外语选修课 | 2 | YEAR 3: SEMESTER 3 第三学期 | | |
| UHLB 3132 | Professional Communication Skills 2 专业沟通技巧2 | 2 | SETK 3915 | Industrial Training  实习 | 5 |

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| **Year 4 第四学年** | | | | | |
| YEAR 4: SEMESTER 1 第一学期 | | | YEAR 4: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETK 4143 | Chemical Product Design  化工产品设计 | 3 | SETK 4573 | Process Safety & Operability  工艺安全及可操作性 | 3 |
| SETK 4751 | Process Control Laboratory  过程控制实验 | 1 | SETK 4834 | Plant Design Project\*\*  工厂设计项目\*\* | 4 |
| SETK 4761 | Separation Processes Laboratory  II 分离工艺实验 II | 1 | SETK 4\*\*3 | Elective 2  选修 2 | 3 |
| SETK 4153 | Plant Design\*  工厂设计\* | 3 | SET\* 5\*\*3 | PRISMS Elective 2  PRISMS选修 2 |
| SETK 3552 | Occupational Safety and Health in  Industry 职业安全与健康行业 | 2 | SETK 4\*\*3 | Elective 3  选修 3 | 3 |
| SETK 4824 | Undergraduate Project II\*\*  本科生项目 II\*\* | 4 | SET\* 5\*\*3 | PRISMS Elective 3  PRISMS选修 3 |
| SETK 4\*\*3 | Elective 1  选修 1 | 3 |  | | |
| SET\* 5\*\*3 | PRISMS Elective 1  PRISMS选修 1 |
| Note: \* - cornerstone course; \*\* - capstone course; @ - with tutorial  # - must pass (at least with grade D+) for prerequisite course  注： \* - 基石课程； \*\* - 顶点课程； @ - 附带辅导课程  # - 先修课程必须及格（至少D+级） | | | | | |

**Faculty of Chemical & Energy Engineering**

化学与能源工程学院

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| **BACHELOR OF CHEMICAL ENGINEERING (BIOPROCESS) WITH HONOURS** 化学工程**(**生物工艺**)**荣誉学士学位 | | | | | |
| **Year 1第一学年** | | | | | |
| **YEAR 1: SEMESTER 1** 第一学期 | | | **YEAR 1: SEMESTER 2** 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 | **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SETB 1011 | Industrial & Career Seminar  工业与职业研讨会 | 1 | SETB 1113 | Mass Balance\*@  质量平衡\*@ | 3 |
| SETB 1021 | Engineering Drawing  工程图纸 | 1 | SETB 2033 | Thermodynamics@  热力学@ | 3 |
| SETB 1023 | Introduction to Chemical & Bioprocess Engineering 化学与生物工艺工程导论 | 3 | SETB 1133 | Microbiology for Engineers  工程师微生物学 | 3 |
| SETB 1123 | Statics & Biomaterial@  静力学与生物材料 | 3 | SSCE 1993 | Engineering Mathematics II@  工程数学II@ | 3 |
| SEEU 2003 | Electrical Technology  电气科技 | 3 | ULRS 1182 | Appreciation of Ethics and Civilizations (for Local Students)（本地学生） | 2 |
| SSCE 1693 | Engineering Mathematics I@  工程数学 I@ | 3 | UHLM 1012 | Malay Language for Communication 2 (for International Students)  马来语交流（国际学生） |
| ULRS 1032 | Integrity And Anti-Corruption Courses 廉政与反腐败课程 | 2 |  | | |

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| **Year 2 第二学年** | | | | | |
| YEAR 2: SEMESTER 1 第一学期 | | | YEAR 2: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETB 2113 | Introduction to Programming 编程入门 | 3 | SETB 2133 | Chemical Engineering Computation 化学工程计算 | 3 |
| SETB 2123 | Energy Balance\*@  能量平衡\*@ | 3 | SETB 2213 | Chemical Engineering Thermodynamics 化学工程热力学 | 3 |
| SETB 2043 | Fluid Mechanics  流体力学 | 3 | SETB 2313 | Transport Processes\*  运输过程\* | 3 |
| SSCK 1603 | Organic Chemistry: Functional Group  有机化学：功能群 | 3 | SETB 2711 | Thermodynamics and Material Eng. Laboratory 热力学与材料工程实验室 | 1 |
| SSCK 1831 | Organic Chemistry Practical  有机化学 | 1 | SSCK 1203 | Analytical Chemistry for Engineering 分析化学工程 | 3 |
| SSCE 1793 | Differential Equations  微分方程 | 3 | SSCK 1891 | Analytical Chemistry Practical  化学分析实用 | 1 |
| ULRF 2\*\*2 | Service Learning & Community  Engagement Courses 社区服务与学习 | 2 | ULRS 1022 | Philosophy and Current Issues  哲学与时事 | 2 |
|  | | | UHLB 2122 | Professional Communication Skills 1 专业沟通技巧 1 | 2 |

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| **Year 3 第三学年** | | | | | |
| YEAR 3: SEMESTER 1 第一学期 | | | YEAR 3: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETB 3223 | Chemical Reaction Engineering  化学反应过程 | 3 | SETB 3113 | Bioseparation Technology  生物分离技术 | 3 |
| SETB 3323 | Separation Processes\*  分离流程\* | 3 | SETB 3143 | Process Control\*  过程控制\* | 3 |
| SETB 3413 | Environmental Eng. and Sustainability 环境工程和可持续性发展 | 3 | SETB 3173 | Engineering Economics and Project Management 工程经济与项目管理 | 3 |
| SETB 2721 | Fluid Mechanics Laboratory  流体力实验 | 1 | SETB 3812 | Undergraduate Project I\*\*  本科生项目I\*\* | 2 |

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| UHLB 3132 | | Professional Communication Skills 2 专业沟通技巧2 | 2 | SETB 1721 | Bioprocess Engineering Laboratory : Downstream 生物过程工程实验： 下 | | 1 |
| UHL\* 1112 | | Foreign Language for Communication 外语沟通 | 2 | SETB 3721 | Pollution Control & Reaction Laboratory 污染控制与反应实验 | | 1 |
| SETB 3213 | | Biochemistry  生物化学 | 3 | ULRS 1032 | Entrepreneurship & Innovation  创业与创新 | | 2 |
| SETB 1721 | | Bioprocess Engineering Laboratory: Upstream生物过程工程实验室： 上 | 1 | \*\*\*\* \*\*\*3 | Free Elective  自由选修课 | | 3 |
| **Year 3 第三学年** | | | | | | | |
| YEAR 3: SEMESTER 3 第三学期 | | | | | | | |
| **Code 代码** | **Course Name 课程名字** | | | | | **Credit**  学分 | |
| SETB 3915 | Industrial Training  实习 | | | | | 5 | |

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| **Year 4 第四学年** | | | | | |
| YEAR 4: SEMESTER 1 第一学期 | | | YEAR 4: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETB 4814 | Undergraduate Project II\*\*  本科生项目 II\*\* | 4 | SETB 4824 | Plant Design Project\*\*  工厂设计项目\*\* | 4 |
| SETB 3133 | Bioreactor Design & Analysis  生物反应器设计与分析 | 3 | SETB 4133 | Quality Management in  BioManufacturing生物制造中的质量管理 | 3 |
| SETB 4153 | Plant Design\*  工厂设计\* | 3 | SETB 4741 | Process Control Laboratory  过程控制实验 | 1 |
| SETB 4163 | Safety and Health in Chemical &  BioIndustry 化学与生物工业的安全与健康 | 3 | SETB 4\*\*3 | Bioprocess Elective Course 1  生物工艺选修课 1 | 3 |
| SETB 3731 | Separation Processes Laboratory  分离工艺实验 | 1 | SET\* 5\*\*3 | PRISMS Elective 1  PRISMS选修 1 |
| SETB 3123 | Molecular Biology & Genetic Engineering 生物分子学与基因工程 | 3 | SETB 4\*\*3 | Bioprocess Elective Course 2  生物工艺选修课 2 | 3 |
|  |  |  | SET\* 5\*\*3 | PRISMS Elective 2  PRISMS选修 2 | 3 |

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| Note: \* - cornerstone course; \*\* - capstone course; @ - with tutorial  # - must pass (at least with grade D+) for prerequisite course  注： \* - 基石课程； \*\* - 顶点课程； @ - 附带辅导课程  # - 先修课程必须及格（至少D+级） |

**Faculty of Chemical & Energy Engineering**

化学与能源工程学院

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| **BACHELOR OF CHEMICAL ENGINEERING (GAS) WITH HONOURS** 化学工程**(**气体**)**荣誉学士学位 | | | | | |
| **Year 1第一学年** | | | | | |
| **YEAR 1: SEMESTER 1** 第一学期 | | | **YEAR 1: SEMESTER 2** 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 | **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SEEU 2003 | Electrical Technology  电气科技 | 3 | SECP 1013 | Programming Technique I  编程技术 I | 3 |
| SETG 1233 | Introduction to Chemical and Gas  Engineering化学与气体工程导论 | 3 | SETG 1313 | Mechanics of Engineering  工程力学 | 3 |
| SETG 1323 | Engineering Drawing  工程制图 | 3 | SETG 1333 | Thermodynamics@  热力学@ | 3 |
| SSCE 1693 | Engineering Mathematics I@  工程数学 I@ | 3 | SETG 1413 | Mass Balance\*@  质量平衡\*@ | 3 |
| ULRS 1032 | Integrity And Anti-Corruption Course 廉政与反腐败课程 | 2 | SSCE 1993 | Engineering Mathematics II@  工程数学II@ | 3 |
|  |  |  | ULRS 1182 | Appreciation of Ethics and Civilizations (for Local Students)（本地学生） | 2 |
|  |  |  | UHLM 1012 | Malay Language for Communication 2 (for International Students)  马来语交流（国际学生） |

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| **Year 2 第二学年** | | | | | |
| YEAR 2: SEMESTER 1 第一学期 | | | YEAR 2: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETG 2343 | Fluid Mechanics  流体力学 | 3 | SETG 2133 | Combustion Engineering and Gas Utilisation 燃烧工农村与气体利用 | 3 |
| SETG 2353 | Introduction to Organic and Analytical Chemistry for  Engineers化学工程师有机和分析导论 | 3 | SETG 2433 | Chemical Engineering Thermodynamics 化学工程热力学 | 3 |
| SETG 2363 | Material Engineering  材料工程 | 3 | SETG 2443 | Transport Processes\*  运输过程 | 3 |
| SETG 2423 | Energy Balance@  能量平衡@ | 3 | SETG 3453 | Chemical Engineering Computation 化学工程计算 | 3 |
| SETG 3751 | Thermodynamics and Material Engineering Laboratory热力学与材料工程实验 | 1 | ULRS 1022 | Philosophy and Current Issues  哲学与时事 | 2 |
| SSCE 1793 | Differential Equations  微分方程 | 3 | UHLB 2122 | Professional Communication Skills 1 专业沟通技巧1 | 2 |
| ULRF 2\*\*2 | Service Learning & Community  Engagement Courses 社区服务与学习 | 2 | \*\*\*\* \*\*\*2 | Free Elective 1  自由选修课1 | 2 |

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| **Year 3 第三学年** | | | | | |
| YEAR 3: SEMESTER 1 第一学期 | | | YEAR 3: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETG 2741 | Fluid Mechanics Laboratory  流体力学实验 | 1 | SETG 3123 | Gas Processing and Liquefaction  气体加工和液化 | 3 |
| SETG 3213 | Gas Transmission and Distribution\* 气体输配\* | 3 | SETG 3383 | Safety and Health in Petrochemical Industry石油化行业的健康与安全 | 3 |
| SETG 3373 | Environmental Engineering and  Sustainability环境工程与可持续性发展 | 3 | SETG 3483 | Process Control and Instrumentation 过程控制与仪器仪表 | 3 |
| SETG 3463 | Chemical Reaction Engineering  化学反应工程 | 3 | SETG 3812 | Undergraduate Project I\*\*  本科生项目 I\*\* | 2 |

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| SETG 3473 | | Separation Process\*  分离过程\* | 3 | SETG 4711 | Gas Flow System Laboratory  气体流动系统实验 | | 1 |
| SETG 3721 | | Combustion Engineering and Gas  Utilisation Laboratory  燃烧工程与气体利用实验 | 1 | SETG 4761 | Pollution Control and Reaction  Laboratory污染控制与反应实验 | | 1 |
| UHLB 3132 | | Professional Communication Skills 2 专业沟通技巧 2 | 2 | ULRS 3032 | Entrepreneurship and Innovation  创业与创新 | | 2 |
| UHL\* 1112 | | Communication in Foreign Language Elective外语选修课 | 2 | \*\*\*\* \*\*\*3 | Free Elective 2  自由选修课2 | | 3 |
| **Year 3 第三学年** | | | | | | | |
| YEAR 3: SEMESTER 3 第三学期 | | | | | | | |
| **Code 代码** | **Course Name 课程名字** | | | | | **Credit**  学分 | |
| SETG 3915 | Industrial Training  实习 | | | | | 5 | |

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| **Year 4 第四学年** | | | | | |
| YEAR 4: SEMESTER 1 第一学期 | | | YEAR 4: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETG 3731 | Separation Process Laboratory  分离工艺实验 | 1 | SETG 4223 | Gas Storage and Reticulation System\* 储气和管网系统\* | 3 |
| SETG 4393 | Engineering Economics and Project Management 工程经济与工程管理 | 3 | SETG 4610 | Gas Engineering Seminar  气体工程研讨会 | 0 |
| SETG 4493 | Plant Design\*  工厂设计\* | 3 | SETG 4834 | Plant Design Project\*\*  工厂设计项目 | 4 |
| SETG 4771 | Process Control Laboratory  过程控制实验 | 1 | SETG 4\*\*3 | Programme Elective II  选修课 II | 3 |
| SETG 4824 | Undergraduate Project II\*\*  本科生项目 II\*\* | 4 | SET\* 5\*\*3 | PRISMS Elective II  PRISMS 选修课 II |
| SETG 4\*\*3 | Programme Elective I  选修课程 I | 3 | SETG 4\*\*3 | Programme Elective III  选修课 III | 3 |
| SET\* 5\*\*3 | PRISMS Elective 1  PRISMS选修 1 |  | SET\* 5\*\*3 | PRISMS Elective III  PRISMS 选修课 III |
| Note: \* - cornerstone course; \*\* - capstone course; @ - with tutorial  # - must pass (at least with grade D+) for prerequisite course  注： \* - 基石课程； \*\* - 顶点课程； @ - 附带辅导课程  # - 先修课程必须及格（至少D+级） | | | | | |

**Faculty of Chemical & Energy Engineering**

化学与能源工程学院

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| **BACHELOR OF NUCLEAR ENGINEERING WITH HONOURS**  核工程荣誉学士学位 | | | | | |
| **Year 1第一学年** | | | | | |
| **YEAR 1: SEMESTER 1** 第一学期 | | | **YEAR 1: SEMESTER 2** 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 | **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SETN 1113 | Modern Physics  现代物理学 | 3 | SERN 1133 | Engineering Drawing  工程制图 | 3 |
| SETN 1143 I | Introduction to Engineering  工程概论 | 3 | SERN 1123 | Fluid Mechanics@  流体力学@ | 3 |
| SETN 1243 | Statics@  静力学 | 3 | SERN 1224 | Electrical Engineering Fundamentals with Laboratory电气工程基础实验 | 4 |
| SSCE 1693 | Engineering Mathematics I@  工程数学 I@ | 3 | SERN 2213 | Nuclear Physics  核物理 | 3 |
| ULRS 1032 | Integrity And Anti-Corruption Course  廉政与反腐败课程 | 2 | SSCE 1993 | Engineering Mathematics II@  工程数学 II@ | 3 |
|  |  |  | ULRS 1182 | Appreciation of Ethics and Civilizations (for Local Students)（本地学生） | 2 |
|  |  |  | UHLM 1012 | Malay Language for Communication 2 (for International Students)  马来语交流（国际学生） |

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| **Year 2 第二学年** | | | | | |
| YEAR 2: SEMESTER 1 第一学期 | | | YEAR 2: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SECP 2273 | Programming for Engineers  工程师编程 | 3 | SETN 2133 | Dynamics@  动力学@ | 3 |
| SETN 1711 | Fluid Mechanics Lab  流体力学实验 | 1 | SETN 2223 | Heat Transfer  热量传播 | 3 |
| SETN 2113 | Thermodynamics@  热力学@ | 3 | SETN 2393 | Numerical Methods for Nuclear  Engineers核工程数值方法 | 3 |
| SETN 2123 | Strength of Materials  材料强度 | 3 | SETN 2711 | Thermodynamics & Mechanics of Material Laboratory  材料热力学与力学实验 | 1 |
| SETN 2243 | Nuclear Engineering Fundamentals 核工程基础 | 3 | SETN 3711 | Nuclear Physics Laboratory  核物理实验 | 1 |
| SSCE 1793 | Differential Equations  微分方程 | 3 | SSCE 2193 | Engineering Statistics  工程数据 | 3 |
| ULRF 2\*\*2 | Service Learning and Community  Engagement Elective社区服务与学习 | 2 | ULRS 1022 | Philosophy and Current Issues  哲学与时事 | 2 |
|  | | | UHLB 2122 | Professional Communication Skills 1 专业沟通技巧1 | 2 |

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| **Year 3 第三学年** | | | | | |
| YEAR 3: SEMESTER 1 第一学期 | | | YEAR 3: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETN 3113 | Nuclear Radiation Protection  核辐射防护 | 3 | SETN 3123 | Nuclear Reactor Material  核反应堆材料 | 3 |
| SETN 3173 | Engineering Economics & Project  Management工程经济与项目管理 | 3 | SETN 3253 | Nuclear Safety, Safeguard, Security & Regulation核安全、保障与监管 | 3 |
| SETN 3213 | Nuclear Reactor Theory  核反应堆理论 | 3 | SETN 3233 | Radiation Detection and Measurement 辐射探测与测量 | 3 |
| SETN 3224 | Thermal Hydraulics with Laboratory 热液压实验 | 4 | SETN 3721 | Nuclear Reactor Lab  核反应堆实验 | 1 |

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| UHLB 3132 | Professional Communication Skills 2 专业沟通技巧 2 | 2 | SETN 4812 | Undergraduate Project I\*\*  本科生项目 I\*\* | 2 |
| UHL\* 1\*\*2 | Communication in Foreign Language Elective外语选修课 | 2 | ULRS 3032 | Entrepreneurship and Innovation  创业与创新 | 2 |
|  |  |  | \*\*\*\* \*\*\*3 | Free Elective  自由选修课 | 3 |

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| **Year 3 第三学年** | | |
| YEAR 3: SEMESTER 3 第三学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SETN 3915 | Industrial Training  实习 | 5 |

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| **Year 4 第四学年** | | | | | |
| YEAR 4: SEMESTER 1 第一学期 | | | YEAR 4: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETN 3223 | Instrumentation and Control Engineering 仪表与控制工程 | 3 | SETN 4453 | Nuclear Power Plant System  核电站系统 | 3 |
| SETN 4711 | Radiation, Detection & Measurement Laboratory辐射、检测与测量实验 | 1 | SETN 4113 | Nuclear Fuel Cycle and Waste  Management核燃料循环和废物管理 | 3 |
| SETN 4824 | Undergraduate Project II\*\*  本科生项目 II\*\* | 4 | SETN 4611 | Nuclear Engineering Professional Practice\*\*核工程专业实践\*\* | 1 |
| SETN 4833 | Nuclear Engineering System and Design I 核工程系统与设计 I | 3 | SETN 4834 | Nuclear Engineering System and Design II 核工程系统与设计 II | 4 |
| SETN 4\*\*3 | Programme Elective I  选修课程 I | 3 | SETN 4\*\*3 | Programme Elective II  选修课 II | 3 |
| SET\* 5\*\*3 | PRISMS Elective 1  PRISMS选修 1 | SET\* 5\*\*3 | PRISMS Elective II  PRISMS 选修课 II |
| Note: \* - cornerstone course; \*\* - capstone course; @ - with tutorial  # - must pass (at least with grade D+) for prerequisite course  注： \* - 基石课程； \*\* - 顶点课程； @ - 附带辅导课程  # - 先修课程必须及格（至少D+级） | | | | | |

**Faculty of Chemical & Energy Engineering**

化学与能源工程学院

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| **BACHELOR OF PETROLEUM ENGINEERING WITH HONOURS**  石油工程荣誉学士学位 | | | | | |
| **Year 1第一学年** | | | | | |
| **YEAR 1: SEMESTER 1** 第一学期 | | | **YEAR 1: SEMESTER 2** 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 | **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SSCE 1693 | Engineering Mathematics 1  工程数学 1 | 3 | SSCE 1793 | Differential Equations  微分方程 | 3 |
| ULRS 1032 | Integrity and Anti-Corruption Course 廉政和反腐败 | 2 | ULRS 1182 | Appreciation of Ethics and Civilizations (for Local Students)（本地学生） | 2 |
| SSCK 1203 | Analytical Chemistry for Engineers  化学工程分析 | 3 | UHLM 1012 | Malay Language for Communication 2 (for International Students)  马来语交流（国际学生） |
| SETP 1313 | Introduction to Petroleum Engineering\* 石油工程导论\* | 3 | SETP 1123 | Fluid Mechanics  流体力学 | 3 |
| SETP 1113 | Engineering Mechanics  工程力学 | 3 | SETP 1133 | Engineering Drawing  工程制图 | 3 |
|  | | | SETP 2113 | Thermodynamics  热力学 | 3 |

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| **Year 2 第二学年** | | | | | |
| YEAR 2: SEMESTER 1 第一学期 | | | YEAR 2: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| ULRF2\*\*2 | Service Learning and Community  Engagement Elective社区服务与学习 | 2 | SETP2721 | Basic Geoscience Lab  地球科学基础实验 | 1 |
| SESP 1103 | C Programming Technique  C 编程技术 | 3 | SETP 2313 | Reservoir Rock and Fluids Properties\* 储层岩石和流体性质 | 3 |
| SSCE 1993 | Engineering Mathematics II  工程数学 II | 3 | SETP 2731 | Thermodynamics & Mechanics of Material Lab.材料热力学与力学实验 | 1 |
| SEEU 2003 | Electrical Technology  电气技术 | 3 | UHLB 2122 | Professional Communication  Skills 1 专业沟通技巧 1 | 2 |
| SETP 2123 | Mechanics of Material  材料力学 | 3 | ULRS 1022 | Philosophy and Current Issues  哲学与时事 | 2 |
| SETP 2213 | Basic Geosciences\*  地球科学基础 | 3 | \*\*\*\* \*\*\*3 | Free Elective  自由选修课 | 3 |
| SETP 1711 | Fluid Mechanics Lab.  流体力学实验 | 1 | SSCE 2393 | Numerical Methods  数值方法 | 3 |
|  | | | SSCE 2193 | Engineering Statistics  工程数据 | 3 |

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| **Year 3 第三学年** | | | | | |
| YEAR 3: SEMESTER 1 第一学期 | | | YEAR 3: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETP 3413 | Drilling Engineering\*  钻井工程 | 3 | SETP 3423 | Well Completion  完井 | 3 |
| SETP 3741 | Drilling Fluid Lab.  钻井液实验 | 1 | SETP 3113 | Petroleum Economics  石油经济 | 3 |
| SETP 3213 | Formation Evaluation  编队评估 | 3 | SETP 3513 | Petroleum Production Engineering\* 石油生产工程 | 3 |
| SETP 3313 | Reservoir Engineering\*  油藏工程 | 3 | SETP 3123 | Health, Safety and Environment\*  健康、安全与环境 | 3 |

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| SETP 3731 | Reservoir Engineering Lab.  油藏工程实验 | 1 | SETP 3812 | Undergraduate Project I\*\*  本科生项目 I\*\* | 2 |
| SETP 3921 | Geology Field Work@  野外地质工作 | 1 | ULRS 1032 | Entrepreneurship and Innovation  创业与创新 | 2 |
| UHLB 3132 | Professional Communication Skills 2 专业沟通技巧 2 | 2 |  |  |  |
| UHL\* 1\*\*2 | Communication in Foreign Language Elective外语选修课 | 2 |  |  |  |

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| **Year 3 第三学年** | | |
| YEAR 3: SEMESTER 3 第三学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit**  学分 |
| SETP 3915 | Industrial Training  实习 | 5 |

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| **Year 4 第四学年** | | | | | |
| YEAR 4: SEMESTER 1 第一学期 | | | YEAR 4: SEMESTER 2 第二学期 | | |
| **Code 代码** | **Course Name 课程名字** | **Credit** 学分 | **Code 代码** | **Course Name 课程名字** | Credit  学分 |
| SETP 4814 | Undergraduate Project II\*\*  本科生项目 II\*\* | 4 | SETP 4834 | Field Development Plan II\*\*  油田开发计划 II\*\* | 4 |
| SETP 4822 | Field Development Plan I\*\*  油田开发计划 I\*\* | 2 | SETP 4323 | Secondary and Tertiary Oil Recovery 二、三次采油 | 3 |
| SETP 4213 | Petroleum Geology  石油地质学 | 3 | SETP 4513 | Gas Engineering  天然气工程 | 3 |
| SETP 4113 | Petroleum Management and  Entrepreneurship 石油管理与创业 | 3 | SETP 4\*\*3 | Petroleum Eng. Elective  石油工程 选修课 | 3 |
| SETP 4313 | Well Testing  试井 | 3 | SET\* 4\*\*3 | Technical Elective  技术选修课 | 3 |
| SETP 3323 | Reservoir Simulation  油藏模拟 | 3 |  | | |
| Note: \* - cornerstone course; \*\* - capstone course; @ - with tutorial  # - must pass (at least with grade D+) for prerequisite course  注： \* - 基石课程； \*\* - 顶点课程； @ - 附带辅导课程  # - 先修课程必须及格（至少D+级） | | | | | |