

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 1, UPC Admission Student, Autumn Start, UPC & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|---|--|
| Sem 1, UPC Autumn | Sem 2, DIT Spring | Sem 3, Purdue Autumn | Sem 4, Purdue Spring |
| Core Modules/Courses | Core Modules/Courses* | Core Modules/Courses | |
| Environmental and Ecological Economics | MECH 9002 Innovation and Knowledge Management | TECH 646 Analysis of Research in Industry and Technology | TECH 621 Building a Philosophy of Technology |
| Systems Thinking and Complexity | or REEN 2215 Renewable Energy Technologies | STAT 501 Experimental Statistics I | |
| Ecology and Natural Resource Mgmt. | | | |
| Human Sustainable Development | Irish Cultural Studies | | |
| Urban Ecology and Land Use Planning | English (If required) | English (If required) | English (If required) |
| Culture, Technology and Innovation | Joint Directed Project (Engagement in directed project can start at the start of this semester) | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project (Must be completed by the end of this semester) |
| Elective Modules/Courses (No elective modules in this semester) | Elective Modules/Courses (3 of the following if English not required. 2 of the following, if English is required) | Elective Modules/Courses (3 of the following if English not required. 1 of the following, if English is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | |
| English support (if required) | Whichever module above is not selected as core can be considered when choosing an elective. | IT 507 Measurement & Evaluation in Industry & Technology | |
| | ENER 1702 Energy Supply | IT 590 Special Problems in Industrial Technology | |
| | MECH 9010 Applied Surface Engineering | IT 623 Contemporary Industrial Technology Problems | |
| | SSPL 9055 Sustainable Construction | IT 668 Administering Technical Programs | |
| | SSPL 9030 Env. Design & Mgmt. | ECET 581C Efficient Energy Systems | |
| | BITE 2216 Biomass Technology/Biofuels | CIT 550 Organizational Impact of Information Technology | |
| | CBEM 1404 Artificial Intelligence | CIT 551 Information Technology Economics | |
| | MECH 9000 Advanced Dynamics | Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | |
| | CBEM 1415 Computer Aided Design and Eng. | English courses, e.g. ENGL 62100, ENGL 62000, ENGL 10600 | |
| | ADEN 2211 Advanced Energy Systems | | |
| | ENCO 1104 Energy Conversion and Use | | |
| | MECH 9013 Computational Fluid Dynamics | | |
| | MECH 9014 Heat and Mass Transfer | | |
| | CBEM 1412 Engineering Systems Simulations | | |
| | Other suitable electives | Other suitable electives | |

Notes: Awards on completion: UPC MSc (Sustainability) and Purdue University MSc (Technology).

* Students must take Irish Cultural Studies and one other core module listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 3, Purdue Admission Student, Fall Start, End in DIT, DIT or UPC, & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|---|---|
| Sem 1, Purdue Fall | Sem 2, Purdue Spring | Sem 3, UPC Fall | Sem 4, DIT Spring |
| Core Courses/Modules | | Core Courses/Modules | |
| TECH 621 Building a Philosophy of Technology | TECH 646 Analysis of Research in Industry and Technology | Environmental and Ecological Economics | MECH 9002 Innovation and Knowledge Management |
| MET 527 Technology from a Global Perspective | | Culture, Technology and Innovation | or REEN 2215 Renewable Energy Technologies |
| STAT 501 Experimental Statistics I | | Systems Thinking and Complexity | |
| | | Human Sustainable Development | |
| Spanish (If required) | Spanish (If required) | Spanish (If required) | Irish Cultural Studies |
| | | Orientation-Cultural Week | |
| | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project | Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001 if working toward a DIT award) |
| Elective Courses/Modules (4 of the following if Spanish not required. 2 of the following, if Spanish is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | | Elective Courses/Modules (2 of the following if Spanish not required. 1 of the following, if Spanish is required) | |
| IT 507 Measurement & Evaluation in Industry & Technology | | Ecology and Natural Resource Mgmt. | Whichever module above is not selected as core can be considered when choosing an elective. |
| IT 590 Special Problems in Industrial Technology | | Urban ecology and Land Use Planning | ENER 1702 Energy Supply |
| IT 623 Contemporary Industrial Technology Problems | | Sustainable Urban Planning | MECH 9010 Applied Surface Engineering |
| IT 668 Administering Technical Programs | | Social and Environmental Aspects of Information Technology | SSPL 9055 Sustainable Construction |
| ECET 581C Efficient Energy Systems | | Bioclimatics Architecture | SSPL 9030 Env. Design & Mgmt. |
| CIT 550 Organizational Impact of Information Technology | | Global Democratic Governance | BITE 2216 Biomass Technology/Biofuels |
| CIT 551 Information Technology Economics | | | CBEM 1404 Artificial Intelligence |
| Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | | | MECH 9000 Advanced Dynamics |
| | | | CBEM 1415 Computer Aided Design and Eng. |
| | | | ADEN 2211 Advanced Energy Systems |
| | | | ENCO 1104 Energy Conversion and Use |
| | | | MECH 9013 Computational Fluid Dynamics |
| | | | MECH 9014 Heat and Mass Transfer |
| | | | CBEM 1412 Engineering Systems Simulations |
| Other suitable electives | | Other suitable electives | |

Notes: Awards on completion: UPC MSc (Sustainability) or DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).

Whether a DIT or UPC award accrues on completion will be decided by the programme committee in consultant with each individual student.

* Students must take Irish Cultural Studies and one other core module listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 4, Purdue Admission Student, Fall Start, End in UPC, DIT & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|--|---|
| Sem 1, Purdue Fall | Sem 2, Purdue Spring | Sem 3, DIT Fall | Sem 4, UPC Spring |
| Core Courses/Modules | | Core Courses/Modules* | |
| TECH 621 Building a Philosophy of Technology | TECH 646 Analysis of Research in Industry and Technology | MECH 9016 Renewable and Alternative Energy Technologies | Measuring for Sustainability |
| STAT 501 Experimental Statistics I | | or MECH 9015 Sustainable Energy Sys. | Human Development Models |
| MET 527 Technology from a Global Perspective | | or SPEC 9160 Problem Solving, Communication and Innovation | |
| | | or SSPL 9062 Society & Sustainable Dev. | |
| | | or SSPL 9034 Case Studies in Sustainability | |
| | | or MECH 9001 Entrepreneurship for Engineers | |
| | | or SSPL 9028 Ecology and Irish Cultural Studies | |
| Spanish (If required) | Spanish (If required) | Spanish (If required) | Orientation-Cultural Week Spanish (If required) |
| | Joint Directed Project (Engagement in directed project can start at the start of this semester) | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001) |
| Elective Courses/Modules (5 of the following if Spanish not required. 3 of the following, if Spanish is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | | Elective Courses/Modules (1 of the following if Spanish not required. If Spanish is required then no elective) | |
| IT 507 Measurement & Evaluation in Industry & Technology | | The modules from the above Core Modules list not selected as core modules can be considered when choosing an elective. | |
| IT 590 Special Problems in Industrial Technology | | CBEM 1413 Engineering Analysis 1 | |
| IT 623 Contemporary Industrial Technology Problems | | CBEM 1409 Graphics and Computer Modelling | |
| IT 668 Administering Technical Programs | | CBEM 1423 Intro. to Numerical Methods | |
| ECET 581C Efficient Energy Systems | | MECH 9017 Biomechanics | |
| CIT 550 Organizational Impact of Information Technology | | | |
| CIT 551 Information Technology Economics | | | |
| Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | | | |
| Other suitable electives | | Other suitable electives | |

Notes: Awards on completion: DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).

* Students must take Irish Cultural Studies and one other core module listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 5, Purdue Admission Student, Spring Start, End in UPC, DIT & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|---|---|
| Sem 1, Purdue Spring | Sem 2, Purdue Fall | Sem 3, DIT Spring | Sem 4, UPC Fall |
| Core Courses/Modules | | Core Courses/Modules | |
| TECH 621 Building a Philosophy of Technology | TECH 646 Analysis of Research in Industry and Technology | MECH 9002 Innovation and Knowledge Management or REEN 2215 Renewable Energy Technologies | Human Sustainable Development Culture, Technology and Innovation |
| STAT 501 Experimental Statistics I | | Irish Cultural Studies | Orientation-Cultural Week |
| MET 527 Technology from a Global Perspective | | Spanish (If required) | Spanish (If required) |
| Spanish (If required) | Spanish (If required) | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001) |
| Elective Courses/Modules (4 of the following if Spanish not required. 2 of the following, if Spanish is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | | Elective Courses/Modules (2 of the following if Spanish not required. 1 of the following, if Spanish is required) | |
| IT 507 Measurement & Evaluation in Industry & Technology | | Whichever module above is not selected as core can be considered when choosing an elective. | |
| IT 590 Special Problems in Industrial Technology | | ENER 1702 Energy Supply | |
| IT 623 Contemporary Industrial Technology Problems | | MECH 9010 Applied Surface Engineering | |
| IT 668 Administering Technical Programs | | SSPL 9055 Sustainable Construction | |
| ECET 581C Efficient Energy Systems | | SSPL 9030 Env. Design & Mgmt. | |
| CIT 550 Organizational Impact of Information Technology | | BITE 2216 Biomass Technology/Biofuels | |
| CIT 551 Information Technology Economics | | CBEM 1404 Artificial Intelligence | |
| Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | | MECH 9000 Advanced Dynamics | |
| | | CBEM 1415 Computer Aided Design and Eng. | |
| | | ADEN 2211 Advanced Energy Systems | |
| | | ENCO 1104 Energy Conversion and Use | |
| | | MECH 9013 Computational Fluid Dynamics | |
| | | MECH 9014 Heat and Mass Transfer | |
| | | CBEM 1412 Engineering Systems Simulations | |
| | | | |
| | | | |
| Other suitable electives | | Other suitable electives | |

Notes: Awards on completion: DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).

* Students must take Irish Cultural Studies and one other core module listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 6, Purdue Admission Student, Spring Start, End in DIT, DIT & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|---|---|
| Sem 1, Purdue Spring | Sem 2, Purdue Fall | Sem 3, UPC Spring | Sem 4, DIT Fall |
| Core Courses/Modules | | Core Courses/Modules* | |
| TECH 621 Building a Philosophy of Technology | TECH 646 Analysis of Research in Industry and Technology | Measuring for Sustainability | MECH 9016 Renewable and Alternative Energy Technologies |
| STAT 501 Experimental Statistics I | | Human Development Models | or MECH 9015 Sustainable Energy Sys. |
| MET 527 Technology from a Global Perspective | | | or MECH 9001 Entrepreneurship for Engineers |
| | | | or SSPL 9062 Society & Sustainable Dev. |
| | | | or SSPL 9034 Case Studies in Sustainability |
| | | | or SPEC 9160 Problem Solving, Communication and Innovation |
| | | Orientation-Cultural Week | or SSPL 9028 Ecology |
| Spanish (If required) | Spanish (If required) | Spanish (If required) | and Irish Cultural Studies |
| | Joint Directed Project (Engagement in directed project can start at the start of this semester) | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001) |
| Elective Courses/Modules (4 of the following if Spanish not required. 2 of the following, if Spanish is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | | Elective Courses/Modules (2 of the following if Spanish not required. 1 of the following, if Spanish is required) | |
| IT 507 Measurement & Evaluation in Industry & Technology | | Social and Environmental Aspects of Information Technology | The modules from the above Core Modules list not selected as core modules can be considered when choosing an elective. |
| IT 590 Special Problems in Industrial Technology | | Energy Efficiency in Construction | |
| IT 623 Contemporary Industrial Technology Problems | | Natural Resources | MECH 9017 Biomechanics |
| IT 668 Administering Technical Programs | | Environmental Policy | CBEM 1423 Intro. to Numerical Methods |
| ECET 581C Efficient Energy Systems | | International Seminar on Sustainable Innovation: Organizations (February) | CBEM 1413 Engineering Analysis 1 |
| CIT 550 Organizational Impact of Information Technology | | International Seminar on Sustainable Innovation: Technology (June) | CBEM 1409 Graphics and Computer Modelling |
| CIT 551 Information Technology Economics | | | |
| Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | | | |
| Other suitable electives | | | Other suitable electives |

Notes: Awards on completion: DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).

* Students must take Irish Cultural Studies and one other core module listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 7, DIT Admission Student, Autumn Start, DIT & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|---|---|---|
| Sem 1, DIT Autumn | Sem 2, UPC Spring | Sem 3, Purdue Autumn | Sem 4, Purdue Spring |
| Core Modules/Courses* | Core Modules/Courses | Core Modules/Courses | |
| MECH 9016 Renewable and Alternative Energy Technologies or MECH 9015 Sustainable Energy Sys. or MECH 9001 Entrepreneurship for Engineers or SSPL 9062 Society & Sustainable Dev. or SSPL 9028 Ecology or SSPL 9034 Case Studies in Sustainability or SPEC 9160 Problem Solving, Communication and Innovation | Measuring for sustainability Human development models Social and Environmental Aspects of Information Technology Orientation-cultural week | TECH 646 Analysis of Research in Industry and Technology STAT 501 Experimental Statistics I Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | TECH 621 Building a Philosophy of Technology Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001) |
| Spanish (If required) | Spanish (If required) | | |
| Elective Modules/Courses (3 of the following if Spanish not required. 1 or 2 of the following, if Spanish is required, i.e. up to 2 Spanish modules, 5 ECTS credits each, may be taken) | Elective Modules/Courses (3 of the following if Spanish not required. 1 of the following if Spanish is required) | Elective Modules/Courses (2 of the following) (1 and no more than 1 elective must be selected from the cultural courses listed) | |
| The modules from the above Core Modules list not selected as core modules can be considered when choosing electives | Energy efficiency in construction | IT 507 Measurement & Evaluation in Industry & Technology | |
| CBEM 1413 Engineering Analysis 1 RESM 1950 Research Methods | Natural resources Environmental Policy | MET 527 Technology from a Global Perspective IT 590 Special Problems in Industrial Technology | |
| MECH 9017 Biomechanics | International Seminar on Sustainable Innovation: Organizations (February) | IT 623 Contemporary Industrial Technology Problems | |
| CBEM 1409 Graphics and Computer Modelling CBEM 1423 Intro. to Numerical Methods | International Seminar on Sustainable Innovation: Technology (June) | IT 668 Administering Technical Programs ECET 581C Efficient Energy Systems CIT 550 Organizational Impact of Information Technology CIT 551 Information Technology Economics Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | |
| Other suitable electives | | Other suitable electives | |

Notes: This plan of study is only available to DIT admission students with a sufficient proficiency in Spanish to allow Sem 2 at UPC. Awards on completion: DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).

* Students must take 3 core modules listed.



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.

Atlantis Concurrent/Dual Master's Degree in Sustainability, Technology and Innovation

| Plan of Study 8, DIT Admission Student, Spring Start, DIT & Purdue Award (120 ECTS credits, 63 credit hours) | | | |
|--|--|---|---|
| Sem 1, DIT Spring | Sem 2, Purdue Autumn | Sem 3, Purdue Spring | Sem 4, UPC Autumn |
| Core Modules/Courses | Core Modules/Courses | | Core Modules/Courses |
| MECH 9002 Innovation and Knowledge Management | TECH 646 Analysis of Research in Industry and Technology | TECH 621 Building a Philosophy of Technology | Human Sustainable Development |
| REEN 2215 Renewable Energy Technologies | STAT 501 Experimental Statistics I | | Culture, Technology and Innovation |
| ENER 1702 Energy Supply | MET 527 Technology from a Global Perspective | | Orientation-Cultural Week |
| Spanish (If required) | Spanish (If required) | Spanish (If required) | Spanish (If required) |
| | Joint Directed Project (Engagement in directed project can start at the start of this semester) | Joint Directed Project (Engagement in directed project must start no later than the start of this semester) | Joint Directed Project (Must be completed by the end of this semester and student must be registered on DIT module STIP 5001) |
| Elective Modules/Courses (3 of the following if Spanish not required. 2 of the following, if Spanish is required) | Elective Modules/Courses (4 of the following if Spanish not required. 2 of the following, if Spanish is required) (1 and no more than 1 elective must be selected from the cultural courses listed) | | Elective Modules/Courses (1 of the following if Spanish not required. If Spanish is required then no elective) |
| MECH 9010 Applied Surface Engineering | IT 507 Measurement & Evaluation in Industry & Technology | | Ecology and Natural Resource Mgmt. |
| SSPL 9055 Sustainable Construction | IT 590 Special Problems in Industrial Technology | | Urban Ecology and Land Use Planning |
| SSPL 9030 Env. Design & Mgmt. | IT 623 Contemporary Industrial Technology Problems | | Environmental and Ecological Economics |
| BITE 2216 Biomass Technology/Biofuels | IT 668 Administering Technical Programs | | Systems Thinking and Complexity |
| CBEM 1404 Artificial Intelligence | ECET 581C Efficient Energy Systems | | Social and Environmental Aspects of Information Technology |
| MECH 9000 Advanced Dynamics | CIT 550 Organizational Impact of Information Technology | | |
| CBEM 1415 Computer Aided Design and Eng. | CIT 551 Information Technology Economics | | |
| ADEN 2211 Advanced Energy Systems | Culture courses, e.g. HIST 58400, SOC 51400, SOC 51500, SOC 52000 | | |
| ENCO 1104 Energy Conversion and Use | | | |
| MECH 9013 Computational Fluid Dynamics | | | |
| MECH 9014 Heat and Mass Transfer | | | |
| CBEM 1412 Engineering Systems Simulations | | | |
| | | | |
| | | | |
| Other suitable electives | Other suitable electives | | |

Notes: Awards on completion: DIT MSc in Sustainability, Technology and Innovation and Purdue University MSc (Technology).



The contents of these pages were developed under an EU-U.S. Atlantis grant (P116J090064) from the Fund for the Improvement of Postsecondary Education, (FIPSE), U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Attention: This action has received funding from the European Community through its EACEA agency. Sole responsibility lies with the author, and the EACEA and the European Commission are not responsible for any use that may be made of the information contained herein.