

# Course overview for International and Intercultural Program (IIP@HBC) for summer semester 2023

## Cluster Designed Sustainability

| Course title  | Code          | Mandatory | Architecture       | Civil Engineering  | Energy Engineering | Project Management | Semester |
|---|---------------|-----------|--------------------|--------------------|--------------------|--------------------|----------|
| <b>Interdisciplinary Competence</b>   |               |           | <b>min 3 ECTS</b>  | <b>min 3 ECTS</b>  | <b>min 3 ECTS</b>  | <b>min 3 ECTS</b>  |          |
| German language course for Incomings  | IO_DK         | x         | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| Intercultural Training  | IO_ITI        | x         | 1                  | 1                  | 1                  | 1                  | WS/SS    |
| Studium Generale (General Skills)   |               |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| <b>Transdisciplinary Reflection</b>   |               |           | <b>1-3 ECTS</b>    | <b>1-3 ECTS</b>    | <b>1-3 ECTS</b>    | <b>1-3 ECTS</b>    |          |
| Interdisciplinary Lecture Series  |               |           | 1                  | 1                  | 1                  | 1                  | WS/SS    |
| Social events / field trips   | IO_SOE/IO.FIT |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| <b>Interdisciplinary Cooperation</b>  |               |           | <b>10 ECTS</b>     | <b>10-12 ECTS</b>  | <b>10-14 ECTS</b>  | <b>7-12 ECTS</b>   |          |
| Interdisciplinary & Intercultural Team Building   |               |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| Design project (Urban Design)   |               |           | 10                 |                    |                    |                    | WS/SS    |
| Project work - Construction Engineering *   |               |           |                    | 2                  |                    |                    | WS/SS    |
| Project work - Urban Water Management *   |               |           |                    | 2                  |                    |                    | WS/SS    |
| Thesis in Civil Engineering   |               |           |                    | 10                 |                    |                    | WS/SS    |
| Interdisciplinary project work **   |               |           |                    |                    | 10                 |                    | WS/SS    |
| Thesis **   |               |           |                    |                    | 14                 |                    | WS/SS    |
| Interdisciplinary project work  |               |           |                    |                    |                    | 7                  | WS/SS    |
| Thesis  |               |           |                    |                    |                    | 12                 | WS/SS    |
| <b>Disciplinary elective lectures</b>   |               |           | <b>4 - 10 ECTS</b> | <b>4 - 10 ECTS</b> | <b>4 - 10 ECTS</b> | <b>4 - 10 ECTS</b> |          |
| Fundamental of Project Management   | BBP10_GPS     |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| International Contract Management   | BBP23_ICM     |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| Process Engineering in Construction   | BBP11_BVT     |           |                    | 2                  |                    | 2                  | WS/SS    |
| International Management Skills (Master level)  | MMB06_IMS     |           |                    | 6                  |                    | 6                  | WS/SS    |
| Bioeconomy #  | BBB33_BIO     |           |                    | 2                  |                    | 2                  | WS/SS    |
| Circular Economy #  | BBB33_ZIR     |           |                    | 2                  |                    | 2                  | WS/SS    |
| Intercultural Cooperation in Civil Engineering ##   |               |           |                    | 1                  |                    |                    | WS/SS    |
| Workshop (topic: Smart City/Mobility as Urban Factor/Sceniorscapes) (5 ECTS for each topic) |               |           | 5-10               |                    |                    |                    | WS/SS    |
| Business Communication Skills   | MEGxx.BCS     |           | 2                  | 2                  | 2                  | 2                  | WS/SS    |
| Writing Lab   | SG.WRL        |           |                    |                    |                    |                    | WS/SS    |
| Introduction to Lighting (online)   |               |           | 2                  | 2                  | 2                  | 2                  | WS       |
| Building Communication Systems (online)   |               |           | 2                  | 2                  | 2                  | 2                  | WS       |
| Electrical Systems  |               |           | 2                  | 2                  | 2                  | 2                  | SS       |
| Summer School   |               |           | 2                  | 2                  | 2                  | 2                  | SS       |

\* Civil Engineering students can choose one project

\*\* Energy Engineering students can choose either Interdisciplinary project work or Thesis

# can be offered in hybrid (German and English)

## available only if there are enough participants

## Cluster Sustainable Biotechnology

| Course title  | Code            | Obligatory | Pharmaceutical<br>Biotechnology | Industrial<br>Biotechnology | Semester |
|---|-----------------|------------|---------------------------------|-----------------------------|----------|
| <b>Intercultural Competence</b>                       |                 |            | <b>min. 3 ECTS</b>              | <b>min. 3 ECTS</b>          |          |
| German language course                                | IO_DK           | X          | 2                               | 2                           | WS / SS  |
| Intercultural Training with Incomings                 | IO_ITI          | X          | 1                               | 1                           | WS / SS  |
| Studium Generale (General Skills)                     |                 |            | 2                               | 2                           | WS / SS  |
| <b>Transdisciplinary Reflection</b>                   |                 |            | <b>min. 2 ECTS</b>              | <b>min. 2 ECTS</b>          |          |
| Interdisciplinary Lecture Series                      |                 |            | 1                               | 1                           | WS / SS  |
| Social Events / Field Trips                           | IO.SOE / IO.FIT |            | 2                               | 2                           | WS / SS  |
| <b>Interdisciplinary Projects</b>                     |                 |            | <b>min. 3 ECTS</b>              | <b>min. 3 ECTS</b>          |          |
| Sustainable Development in Biopharmaceutical Industry | PBT22_SDB       |            | 3                               | 3                           | WS / SS  |
| <b>Disciplinary Electives</b>                         |                 |            |                                 |                             |          |
| Equipment and Plant Engineering IBT                   |                 |            |                                 | <b>2 + 1</b>                | SS       |
| Development Process / Scale Up (Laboratory)*          |                 |            |                                 | <b>5</b>                    | SS       |
| Organical Chemistry and Natural Products Lecture      |                 |            |                                 | <b>2</b>                    | SS       |
| Organical Chemistry and Natural Products Laboratory*  |                 |            |                                 | <b>4</b>                    | SS       |
| Information Retrieval /-management                    |                 |            |                                 | <b>2</b>                    | SS       |
| Product Isolation                                     |                 |            |                                 | <b>2</b>                    | SS       |
| Bioprocessing Technology Lecture                      |                 |            |                                 | <b>2</b>                    | SS       |
| Protein Chemistry                                     |                 |            |                                 | <b>2</b>                    | SS       |
| Cell culture engineering Laboratory*                  | PBT15-ZKT       |            | <b>5</b>                        |                             | WS / SS  |
| Cell culture engineering Seminar                      | PBT15-ZKS       |            | <b>2</b>                        |                             | WS / SS  |
| Biotechnology Lecture Series                          | PBT18-BÖR       |            | <b>2</b>                        |                             | WS / SS  |
| Selected Topics of Modern Biotechnology               | PBT18-ATB       |            | <b>3</b>                        |                             | WS / SS  |
| Downstream Processing*                                | PBT14_BAV/BAP   |            | <b>8</b>                        |                             | WS / SS  |
| Plant and Apparatus Engineering PBT                   | PBT13-AAB       |            | <b>2</b>                        |                             | WS / SS  |
| Biotechnological Processing                           | PBT12-BVT       |            | <b>3</b>                        |                             | WS / SS  |
| Protein Analytics Laboratory                          | PBT14-PAN       |            | <b>3</b>                        |                             | WS / SS  |
| Protein Analytics Seminar                             | PBT14-SPA       |            | <b>1</b>                        |                             | WS / SS  |

## Cluster International Infrastructure and Project Life Cycle Management

| Course title  | Code                            | Mandatory | Civil Engineering   | Project Management  | Business Administration | Semester       |
|---|---------------------------------|-----------|---------------------|---------------------|-------------------------|----------------|
| <b>Intercultural Competence</b>   |                                 |           | <b>3 - 7 ECTS</b>   | <b>3 - 7 ECTS</b>   | <b>3 - 7 ECTS</b>       |                |
| German language course for Incomings  | IO_DK                           | X         | 2                   | 2                   | 2                       | WS / SS        |
| Intercultural Training  | IO_ITI                          | X         | 1                   | 1                   | 1                       | WS / SS        |
| Studium Generale (General Skills)   |                                 |           | 2                   | 2                   | 2                       | WS / SS        |
| <b>Transdisciplinary Reflection</b>   |                                 |           | <b>1 - 3 ECTS</b>   | <b>1 - 3 ECTS</b>   | <b>1 - 3 ECTS</b>       |                |
| Interdisciplinary Lecture Series  |                                 |           | 1                   | 1                   | 1                       | WS / SS        |
| Social events / Field Trips   | IO.SOE / IO.FIT                 |           | 2                   | 2                   | 2                       | WS / SS        |
| <b>Interdisciplinary Projects</b>   |                                 |           | <b>14 - 17 ECTS</b> | <b>14 - 17 ECTS</b> | <b>14 - 17 ECTS</b>     |                |
| Scientific project presentation   | Neu                             |           | 2                   | 2                   | 2                       | WS / SS        |
| Real Life Project Assessment "cultural clash detection"                           | BB6.10-17 (2)                   |           | 1                   | 1                   | 1                       | WS / SS        |
| Interdisciplinary project work  | BP 6.3-1                        |           | 7                   | 7                   | 7                       | WS / SS        |
| Strategic Management (Strategic Development / Entrepreneurship / Design Thinking) |                                 |           | 10                  | 10                  | 10                      | Start in SS 23 |
| International Contract Management   | BBP23_ICM                       |           | 2                   | 2                   | 2                       | WS / SS        |
| Circular Economy  | BB4.2-2(2)                      |           | 2                   | 2                   | 2                       | WS / SS        |
| Energy and Resource Efficiency  |                                 |           | 2                   | 2                   | 2                       | WS / SS        |
| Energy and Mobility   | BEW90_EUM                       |           | 2                   | 2                   | 2                       | WS             |
| Business English  | BBW17_BEN                       |           | 3                   | 3                   | 3                       | WS / SS        |
| <b>Disciplinary Electives</b>   |                                 |           | <b>10 - 15 ECTS</b> | <b>10 - 15 ECTS</b> | <b>10 - 15 ECTS</b>     |                |
| Project work<br>(Construction Engineering / Urban Water Management)               | BB6.11-1 (2) or<br>BB6.11-2 (2) |           | 2                   |                     |                         | WS / SS        |
| Thesis in Civil Engineering   | BB7.10                          |           | 10                  |                     |                         | WS / SS        |
| Intercultural Cooperation in Civil Engineering                                    | BB6.10-15                       |           | 1                   | 1                   | 1                       | WS / SS        |
| Bioeconomy  | BB4.2-2(1)                      |           | 3                   | 3                   | 3                       | WS / SS        |
| Summer School Civil Engineering Sustainable Methods in Construction               |                                 |           | 2                   | 2                   | 2                       | WS             |
| Summer School Civil Engineering Digital Methods in Construction                   |                                 |           | 2                   | 2                   | 2                       | SS             |
| Thesis in Project Management  | BP 7.4-1                        |           |                     | 10                  |                         | WS / SS        |
| Project Management Introduction   | BBP10_GPS                       |           | 2                   | 2                   | 2                       | WS / SS        |
| International Management Skills (Masterlevel)                                     | MMB06_IMS                       |           | 2                   | 2                   | 2                       | WS / SS        |
| International Energy Policy Analysis (Masterlevel)                                | MBW01_EPA                       |           | 3                   | 3                   | 3                       | WS             |
| Global Commodity Trading (Masterlevel)  |                                 |           | 2                   | 2                   | 2                       | SS             |
| Short Term and Flexibility Markets for Power und Gas (Masterlevel)                |                                 |           | 3                   | 3                   | 3                       | WS             |
| Risk Management (Masterlevel)   | MBW06_RIS                       |           | 3                   | 3                   | 3                       | WS / SS        |
| Building Information Modelling  | BP 3.6-1                        |           | 2                   |                     | 2                       | WS / SS        |
| Building Information Modeling in competition and award processes (Pomona)         |                                 |           | 3                   |                     |                         |                |
| Flood protection of coastal areas (San Luis Obispo)                               |                                 |           | 2                   |                     |                         |                |