

## Course Descriptions None 2022-2023

| Course Title  | Organic Chemistry   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
|---|---|-------------------------------|---------------------------|-----|-----|-----|-----|-----|-----|---|----------|-----------|--|--|--|--|--|
| Course Code   | CEN2001   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| ECTS Credits  | 5,0   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Assessment  | Whole/Half Grades   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Period  | <table><thead><tr><th>Period</th><th>Start</th><th>End</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th></tr></thead><tbody><tr><td>4</td><td>6-2-2023</td><td>31-3-2023</td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>  | Period                        | Start                     | End | Mon | Tue | Wed | Thu | Fri | 4 | 6-2-2023 | 31-3-2023 |  |  |  |  |  |
| Period  | Start   | End                           | Mon                       | Tue | Wed | Thu | Fri |     |     |   |          |           |  |  |  |  |  |
| 4   | 6-2-2023  | 31-3-2023                     |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Level   | no level  |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Coordinator   | Hanne Diliën For more information:hanne.dilien@maastrichtuniversity.nl  |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Language of instruction   | English   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Goals   | <ul style="list-style-type: none"><li>* To give the ability to recognize and name common organic compounds.</li><li>* To know the basic physical and chemical properties of common organic compounds.</li><li>* To understand stereochemistry and its impact on the properties and applications of organic molecules.</li><li>* To enable you to understand the most important organic reactions and be able to apply these reactions to obtain well defined organic compounds.</li></ul>   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Description   | <p>PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. A RE-EMERGENCE OF THE CORONAVIRUS AND NEW COUNTERMEASURES BY THE DUTCH GOVERNMENT MIGHT FORCE COORDINATORS TO CHANGE THE TEACHING AND ASSESSMENT METHODS USED. THE MOST UP-TO-DATE INFORMATION ABOUT THE TEACHING/ASSESSMENT METHOD(S) WILL BE AVAILABLE IN THE COURSE SYLLABUS.</p> <p>This course focuses on the basic concepts of organic chemistry. In the first part of the course, important fundamental topics, such as atomic theory, bonding theory, hybridization, molecular orbital theory and resonance will be discussed. A special topic will be stereochemistry, which is an essential topic in organic chemistry and the life sciences, since stereochemistry often determines the activity of biological compounds or medicines. Subsequently, the course continues with an introduction into reactivity of organic molecules. Focus, will be on a selection of fundamental organic reactions, which form the basis for a wide array of other organic reactions. To this end, a logical review will be provided of the reactivity of the most important functional groups, as applied in organic synthesis.</p> |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Literature  | Klein; 'Organic Chemistry'; 3rd edition; Wiley (ISBN: 9781118452288/978-1119110477)   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Prerequisites   | To start the organic chemistry course students need a basic chemistry background in nomenclature, VSEPR theory, Lewis structures, hybridization (sp, sp <sup>2</sup> , sp <sup>3</sup> ), polarity, ...   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Keywords  |   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Teaching methods  | Lecture   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Assessment methods  | Written Exam  |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Evaluation in previous academic year                            | For the complete evaluation of this course please click <a href="http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM">http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM</a>   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| This course belongs to the following programme / specialisation | <table><tr><td>Bachelor Business Engineering</td><td>Year 3 Elective Course(s)</td></tr></table>  | Bachelor Business Engineering | Year 3 Elective Course(s) |     |     |     |     |     |     |   |          |           |  |  |  |  |  |
| Bachelor Business Engineering                                   | Year 3 Elective Course(s)   |                               |                           |     |     |     |     |     |     |   |          |           |  |  |  |  |  |