## Transilvania University of Braşov, Romania

## Study program: Industrial Design (in English)

Faculty:
Study period:
Academic year structure:
Examination sessions (two):

Product Design and Environment 4 years (bachelor)
2 semesters ( 14 weeks per semester) winter session (January/February) summer session (June/July)

Courses per years ( $C=$ course; $S=$ seminar; $L=$ laboratory; $P=$ project )
$1^{\text {st }}$ Year

| No. crt. | Course | Code | $1{ }^{\text {st }}$ Semester |  |  |  |  | $2{ }^{\text {nd }}$ Semester |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Mathematical Analysis | MAT1 | 2 | 2 |  |  | 4 |  |  |  |  |  |
| 02 | Chemistry | CHIM | 2 |  | 1 |  | 4 |  |  |  |  |  |
| 03 | Technical Drawing and Computer Graphics I | DTIF | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 04 | Computer Programming and Programming Languages I | IDPC1 | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 05 | Descriptive Geometry | GEOD | 2 |  | 1 |  | 4 |  |  |  |  |  |
| 06 | Physics | FIZ1 | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 07 | Industrial Design Fundamentals I | IDDI | 1 | 1 |  |  | 3 |  |  |  |  |  |
| 08 | Materials Science and Engineering I | STMA |  |  |  |  |  | 4 |  | 2 |  | 6 |
| 09 | Linear Algebra, Analytical and Differential Geometry | MAT2 |  |  |  |  |  | 2 | 2 |  |  | 4 |
| 10 | Technical Drawing and Computer Graphics II | DTI2 |  |  |  |  |  | 2 |  | 2 |  | 4 |
| 11 | Computer Programming and Programming Languages II | IDPC2 |  |  |  |  |  | 2 |  | 2 |  | 4 |
| 12 | Mechanics | MEC1 |  |  |  |  |  | 3 | 2 |  |  | 6 |
| 13 | Artistic Drawing | IDDS |  |  |  |  |  |  |  | 2 |  | 3 |
| 14 | French Language | LF01/ LF02 | 1 | 1 |  |  | 3 | 1 | 1 |  |  | 3 |
| 15 | Sports | EF01/EFO2 |  | 1 |  |  | 1 |  | 1 |  |  | 1 |

$2^{\text {nd }}$ Year

| No. <br> crt. | Course | Code | 3rd $^{\text {rd }}$ Semester |  |  |  | 4 $^{\text {th }}$ Semester |  |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Special Mathematics |  | 2 | 2 |  |  | 4 |  |  |  |  |  |
| 02 | Measurement Techniques and Systems |  | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 03 | Strength of Materials I | REZ1 | 2 | 2 | 1 |  | 5 |  |  |  |  |  |
| 04 | Electrotechnics | ELEA | 2 |  | 2 |  | 5 |  |  |  |  |  |
| 05 | Industrial Design Fundamentals II | BDP | 1 |  | 1 |  | 3 |  |  |  |  |  |
| 06 | Technical Drawing and Computer Graphics III | IDMODE | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 07 | Communication skills - Ethics | IDCOM | 1 | 1 |  |  | 2 |  |  |  |  |  |
| 08 | Strength of Materials II | REZ2 |  |  |  |  |  | 3 | 1 | 1 |  | 4 |
| 09 | Fluid Mechanics | MEFM |  |  |  |  |  | 2 |  | 2 |  | 3 |
| 10 | Machine Elements I | IDORM1 |  |  |  |  |  | 2 |  | 1 | 1 | 4 |
| 11 | Numerical Methods | IDMNI |  |  |  |  |  | 2 |  | 2 |  | 4 |
| 12 | Quality Management | IDMC |  |  |  |  |  | 1 | 1 |  |  | 3 |


| 13 | Mechanisms I | IDMECA |  |  |  |  |  | 3 |  | 1 | 2 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 14 | Practical work 90 hours | IDPrO4 |  |  |  |  |  |  |  |  |  | 4 |
| 15 | French Language | LFO3/LFO4 | 1 | 1 |  |  | 3 | 1 | 1 |  |  | 3 |
| 16 | Sports | EFO3/EFO4 |  | 1 |  |  | 1 |  | 1 |  |  | 1 |

$3^{\text {rd }}$ Year

| No. crt. | Course | Code | $5^{\text {th }}$ Semester |  |  |  |  | $6^{\text {th }}$ Semester |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Manufacturing Technologies and Cutting Tools | IDTASA | 2 |  | 1 |  | 3 |  |  |  |  |  |
| 02 | Machine Elements II | IDORM2 | 2 | 1 | 1 | 2 | 6 |  |  |  |  |  |
| 03 | Heat Engineering and Thermal Machines | TERM | 2 |  | 1 |  | 3 |  |  |  |  |  |
| 04 | Materials Science and Engineering II (Special Materials) | IDMS05 | 1 |  | 2 |  | 3 |  |  |  |  |  |
| 05 | Conceptual Design I | IDSPD5 | 2 |  |  | 2 | 5 |  |  |  |  |  |
| 06 | Finite Element Analysis | IDMEF5 | 2 |  | 2 |  | 5 |  |  |  |  |  |
| 07 | Aesthetics and Ergonomics | IDEE05 | 2 |  |  | 2 | 5 |  |  |  |  |  |
| 08 | Computer Aided Shape Modelling in Design | ID MAF06 |  |  |  |  |  | 2 |  | 1 | 1 | 4 |
| 09 | Mechanisms II (Computer Aided Modelling) | MAS06 |  |  |  |  |  | 3 |  | 2 | 1 | 6 |
| 10 | Form-giving in Design I (Mock-up making) | IDMa06 |  |  |  |  |  | 2 |  | 1 |  | 3 |
| 11 | Conceptual Design II | IDDC06 |  |  |  |  |  | 2 |  | 1 |  | 3 |
| 12 | Conceptual Design II project | IDDC06P |  |  |  |  |  |  |  |  | 2 | 2 |
| 13 | Practical Work 90 hours | IDPr06 |  |  |  |  |  |  |  |  |  | 4 |
| 14 | Study of Colour for Design | IDCDP6 |  |  |  |  |  | 2 |  | 3 |  | 5 |
| 15 | Design (semiotics) | IDDS06 |  |  |  |  |  | 2 |  | 1 |  | 3 |

## $4^{\text {th }}$ Year

| No. crt. | Course | Code | $7{ }^{\text {th }}$ Semester |  |  |  |  | $8^{\text {th }}$ Semester |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C | S | L | P | Cred | C | S | L | P | Cred |
| 01 | Actuation, command and control of mechanical systems | IDACC7 | 3 |  | 3 |  | 7 |  |  |  |  |  |
| 02 | Embodiment Design | DC07 | 2 |  |  |  | 3 |  |  |  |  |  |
| 03 | Embodiment Design - project | DC07Pr |  |  |  | 2 | 2 |  |  |  |  |  |
| 04 | Design of Mechatronic Products | IDMDP7 | 2 |  |  | 2 | 4 |  |  |  |  |  |
| 05 | Form-giving in Design II | CFD07 | 1 |  | 2 |  | 3 |  |  |  |  |  |
| 06 | Graphic Design | IDDG7 | 2 |  |  | 1 | 3 |  |  |  |  |  |
| 07 | Creativity and Innovation in Design (10 weeks) | CID08 |  |  |  |  |  | 2 |  | 1 |  | 3 |
| 08 | Innovation Management in Product Design (10 weeks) | MINOVID |  |  |  |  |  | 2 |  |  | 2 | 3 |
| 09 | Virtual Prototyping (10 weeks) | PV08 |  |  |  |  |  | 2 |  | 1 | 2 | 4 |
| 10 | Web-design (10 weeks) | CDP08 |  |  |  |  |  | 2 |  | 1 |  | 3 |
| 11 | Project Management (10 weeks) | MP08 |  |  |  |  |  | 1 | 1 |  |  | 2 |
| 12 | Detail Design (10 weeks) | PD08 |  |  |  |  |  | 2 |  |  | 2 | 4 |
| 13 | Diploma Project (14 weeks $\times 4$ hours) | IDPrD |  |  |  |  |  |  |  |  | 4 | 4 |
| 14 | Practical work for diploma project (4 weeks x 24 hours) | Pr08 |  |  |  |  |  |  |  |  |  | 4 |
| 15 | Product Design for Solar Energy Conversion | CES07 | 2 |  | 1 |  | 4 |  |  |  |  |  |
| 16 | Eco-design and Products Recycling | RP07 | 2 |  | 2 |  | 4 |  |  |  |  |  |
| 17 | Package Design | IDDA08 |  |  |  |  |  | 1 |  | 2 |  | 3 |

