

**2 YEARS MASTER COURSE in
MATERIALS ENGINEERING AND NANOTECHNOLOGY
DM 270/04**

| SSD | Modulo | CFU | Semestre | AF |
|---|--|------------|----------|-----------------|
| I anno | | | | |
| CHIM/07 | CHEMISTRY 2 | 9 | I | CARATTERIZZANTE |
| FIS/03 | PHYSICS OF MATTER – MOD. 1 | 6 | I | CARATTERIZZANTE |
| | PHYSICS OF MATTER – MOD. 2 | 6 | | |
| ING-IND/21 | BATTERIES AND FUEL CELLS | 9 | I | CARATTERIZZANTE |
| TOTAL CREDITS I SEMESTER | | 30 | | |
| ING-IND/22 | SCIENCE AND TECHNOLOGY OF POLYMERS | 9 | II | CARATTERIZZANTE |
| ING-IND/24 | TRANSPORT PHENOMENA | 9 | II | AFFINE |
| ING-IND/23 | ELECTROCHEMICAL TECHNOLOGIES | 9 | II | AFFINE |
| TOTAL CREDITS II SEMESTER | | 27 | | |
| TOTAL CREDITS I YEAR | | 57 | | |
| II anno | | | | |
| ING-IND/24 | HEAT AND MASS TRANSFER PHENOMENA IN COMPOSITES AND POLYMERS (PROPRIETA' DI TRASPORTO DEI MATERIALI) | 9 | I | AFFINE |
| TWO of the following course: | | | | |
| ING-IND/22 | COMPOSITE AND NANOCOMPOSITE MATERIALS (MATERIALI COMPOSITI E NANOCOMPOSITI) | 6 | I | CARATTERIZZANTE |
| ING-IND/21 | NON-FERROUS METALLURGY (METALLURGIA NON FERROSA) | 6 | I | CARATTERIZZANTE |
| ING-IND/22 | CERAMICS MATERIALS | 6 | I | CARATTERIZZANTE |
| TOTAL CREDITS I SEMESTER | | 21 | | |
| CURRICULUM MATERIALS FOR ELECTRONIC APPLICATIONS | | | | |
| FIS/03 | SEMICONDUCTOR PHYSICS AND TECHNOLOGY (TECNOLOGIA DEI SEMICONDUTTORI) | 9 | II | CARATTERIZZANTE |
| ING-INF/01 | NANOTECHNOLOGIES FOR ELECTRONICS (NANOTECNOLOGIE PER L'ELETTRONICA) | 6 | II | AFFINE |
| CURRICULUM MATERIALS FOR BIOMEDICAL APPLICATIONS | | | | |
| ING-IND/22 | BIOMATERIALS | 9 | II | CARATTERIZZANTE |
| ING-IND/34 | CELL TISSUES INTERACTION | 6 | II | AFFINE |
| Electives: | | 12 | | |
| Students are obliged to choose courses held in the English in a Master degree of the Faculty of Engineering. The choice can't affect single modules belonging to integrated courses. | | | | |
| (Gli studenti sono obbligati alla scelta di insegnamenti erogati in lingua inglese e attivati sui Corsi di Laurea Magistrale. La scelta non può interessare singoli moduli appartenenti a corsi integrati). | | | | |
| TOTAL CREDITS II SEMESTER | | 27 | | |
| TRAINING PERIOD (TIROCINIO) | | 3 | | |
| FINAL EXAM (TESI) | | 12 | | |
| TOTAL CREDITS II YEAR | | 57 | | |
| TOTALE | | 120 | | |