**MANDATORY QUESTIONS FOR FAU Erlangen-Nürnberg - MSc Materials Science and Engineering**

If an admission exam is necessary, on which subject would student like to be examined? Please, **choose 3 options from the following list**.

Metals, Glass and Ceramics, Polymers, Biomaterials, Mechanical properties, Electrical properties, Surface properties, Material characterization, Materials simulation

Answer here: Metals, Mechanical Properties, Surface Properties.

**Please, fill in the respective information according to the information given in the transcript of records.**

**Each of the courses should correspond to one of the following categories:**

**Mathematics**

**Physics and Chemistry**

**Materials Sciences**

**Computer Science**

**Practical Class**

**Internships and research projects**

**Soft skills**

**English and German**

**Miscellaneous (i.e. everything else)**

**Also enter the total of the credits earned in each category.**

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**1) Modules Mathematics:**

1. **Mathematics – 1:**

Total Credits Mathematics: 3

Average Grade Mathematics: A+

1. **Mathematics – 2:**

Total Credits Mathematics: 3

Average Grade Mathematics: A

1. **Mathematics – 3:**

Total Credits Mathematics: 3

Average Grade Mathematics: C

**2) Modules Physics and Chemistry:**

1. **Chemistry:**

Total Credits Mathematics: 4

Average Grade Mathematics: A+

1. **Physics:**

Total Credits Mathematics: 4

Average Grade Mathematics: B+

**3) Modules Materials Science:**

1. **Strength Of Materials:**

Total Credits Mathematics: 4

Average Grade Mathematics: A

1. **Material Engineering:**

Total Credits Mathematics: 4

Average Grade Mathematics: O

**4) Modules Computer Science:**

1. **Computer Programming:**

Total Credits Mathematics: 4

Average Grade Mathematics: A+

**5) Lab Work:**

1. **Workshop Practice Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: O

1. **Engineering Biology Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: O

1. **Renewable Energy Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: A+

1. **Analysis Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: O

1. **Automation Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: O

1. **Computer Aided Engineering Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: A+

1. **Simulation Lab:**

Total Credits Mathematics: 1

Average Grade Mathematics: O

**6) Internships and research projects:**

1. **Service Learning:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A

1. **Project Work Phase - 1:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: O

1. **Project Work Phase - 2:**

Total Credits Internship and research projects: TBA

Average Grade Internships and research projects: TBA

1. **30 – day Internship at National Motors Pvt Ltd. Kozhikode, Kerala.**
2. **30 – day Internship at Peekay Steels and Castings Pvt Ltd. Kozhikode, Kerala.**
3. **6 months Internship and Placement at Trane Technologies, Bangalore.**

**7) Soft Skills:**

1. **Holistic Education:**

Total Credits Internship and research projects: 1

Average Grade Internships and research projects: O

**8) English and/or German:**

1. **Technical English:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A+

1. **IELTS:**

IELTS overall score: 7.5

**9) Miscellaneous (i.e. everything else):**

1. **Basic Electronics:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: O

1. **Basic Mechanical Engineering and Nanoscience:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Basic Electrical Engineering:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: A+

1. **Basics Of Civil Engineering and Engineering Mechanics:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: A+

1. **Engineering Graphics:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: A

1. **Biology For Engineers:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A+

1. **Basic Thermodynamics:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: A

1. **Manufacturing Processes:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: A+

1. **Instrumentation And Control:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: A+

1. **Environmental Science:**

Total Credits Internship and research projects: -

Average Grade Internships and research projects: -

1. **Applied Thermodynamics:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: A+

1. **Fluid Mechanics And Fluid Machines:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: O

1. **Entrepreneurship Development:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A+

1. **Professional Ethics:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A

1. **Computer Aided Machine Drawing:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: A

1. **Cyber security:**

Total Credits Internship and research projects: -

Average Grade Internships and research projects: -

1. **Non-conventional energy resources:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Solid waste management:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Kinematics and theory of machines:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Design of machine elements:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Internal combustion engines:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: A+

1. **Project Management and Finance:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: A+

1. **Indian Constitution:**

Total Credits Internship and research projects: -

Average Grade Internships and research projects: -

**x) Supply Chain Management:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

**y) Acting Course:**

Total Credits Internship and research projects: 2

Average Grade Internships and research projects: P

1. **Design Of Transmission System:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Heat Transfer:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: O

1. **Automation In Manufacturing:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: A

1. **Flexible Manufacturing Systems:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Operations Management:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Lean Manufacturing:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Automotive Electronics:**

Total Credits Internship and research projects: 3

Average Grade Internships and research projects: O

1. **Vibrations And Control:**

Total Credits Internship and research projects: 4

Average Grade Internships and research projects: O

1. **Agile Manufacturing:**

Total Credits Internship and research projects: TBA

Average Grade Internships and research projects: TBA

Details of Grade - 80-Above (O, 4.0) 70-79.99(A+, 3.6) 60-69.99(A, 3.2) 55-59.99(B+, 2.8) 50-54.99(B, 2.4) 45-49.99(C, 2) 40-44.99(P, 1.6) Less than 40(F, 0)  
5) Details of Result - 75 and above (First Class with Distinction)   60-74 (First Class)   50-59 (Second Class)  40-49 (Pass Class) 39 and below (Fail).