

Course title: Advanced Materials and Technologies (NIMS Lecture) II: Materials and characterization for energy and informatics

Place: Room 215 (Woloska 141) and Bytnara (New building)

27 October, Tuesday (215)

9:30 - Introduction of magnetism I, Prof. Hideaki Kitazawa

10:30 - Introduction of magnetism II, Prof. Hideaki Kitazawa

11:30 - High-field study of rare earth compounds, Prof. Hideaki Kitazawa

28 October, Wednesday (215)

10:00 - Introduction of neutron scattering, Prof. Hideaki Kitazawa

11:00 - Some examples of neutron scattering study for rare earth compounds, Prof. Hideaki Kitazawa

29 October, Thursday (215)

9:30 - Overview and fundamentals of thermal spray technology. Prof. Makoto Watanabe

10:30 - Case study: Thermal barrier coatings (TBC) and Wear resistant coatings, Prof. Makoto Watanabe

11:30 - New thermal spray processes, Prof. Makoto Watanabe

30 October, Friday (Bytnara, new building)

10:00 - Evaluation of coating adhesion/interfacial toughness, Prof. Watanabe

11:00 - Review of nondestructive evaluation (NDE) techniques, Prof. Watanabe

2 November, Monday (215)

9:30 - Introduction of high temperature structural materials, Prof. Yoko Mitarai

10:30 - Heat resistance steel, Prof. Yoko Mitarai

11:30 - Ni-base superalloys, Prof. Yoko Mitarai

3 November, Tuesday (215)

10:00 - High temperature Ti alloys and TiAl, Prof. Yoko Mitarai

11:00 - Shape memory alloys, Prof. Yoko Mitarai