Core Technical Principles

New and Emerging Technologies

N1 I can know and understand the impact of new and emerging technologies on industry

N2 I can know and understand the impact of new and emerging technologies on enterprise

N3 I can know and understand the impact of new and emerging technologies on sustainability

N4 I can know and understand the impact of new and emerging technologies on people

N5 I can know and understand the impact of new and emerging technologies on culture

N6 I can know and understand the impact of new and emerging technologies on society

N7 I can know and understand the impact of new and emerging technologies on the environment

N8 I can know and understand the impact of new and emerging technologies on production techniques and systems

Energy Generation and Storage

E1 I can understand how energy is generated and stored

E2 I can know how energy is used as the basis for the selection of products and power systems

Developments in New Materials

NM1 I can be aware of developments in modern materials

NM2 I can be aware of developments in smart materials

NM3 I can be aware of developments in composite materials

NM4 I can be aware of developments in technical textiles

Systems Approach to Designing

S1 I can consider electronic systems, including programmable components focussing on inputs, processes and outputs

Mechanical Devices

M1 I can know and understand the different types of mechanical devices and the movements they produce

Materials and Their Working Properties

MWP1 I can know and understand the categories of the types and properties of papers and boards

MWP2 I can know and understand the categories of the types and properties of natural and manufactured timbers

MWP3 I can know and understand the categories of the types and properties of metals and alloys

MWP4 I can know and understand the categories of the types and properties of polymers

MWP5 I can know and understand the categories of the types and properties of textiles

MWP6 I can understand the physical properties of materials