thermodynamics of appeand solid chemistry. Mainspection. It is a compre	atistical thermodynamics are used ellation material. It is based on deterials engineering includes mate ehensive discipline that applies embined with material science and	lynamics, crystallography erials design, manufacturi material science principle	, solid state physics ing, molding and s to design and
and improving the quality clarify and predict phase Material thermodynamic these principles and met	nodynamics in this field plays are sy of materials. The application e diagrams, phase transitions and as not only grasps the basic know hods to material practice. We shades, understand the rules of phase	of material thermodynamid other physical phenomer wledge of thermodynamic nould grasp the basic conc	ics principle can na of materials. s, but also applies epts, principles and
courses which have be n content, and makes a go need to master higher lev transformation, phase di	namics is based on the material nastered in the undergraduate le od connection between the teach wel in learning content, grasp the agram, interface, statistics, irrevente basic principles of thermody	vel. This course requires on hing content and teaching the thermodynamics principal versible process and so on.	combs the course depth. The students les of phase Be familiar with and
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Introduction	2	Lecture	X Jin & W Li					
Review and fundamentals of thermodynamics	6	Lecture/exercises	X Jin & W Li					
Calculations of free energy, solutions and thermodynamics of phase diagram	8	Lecture	X Jin & W Li					
Practice of TC software	4	Computational lab	X Jin & W Li					
Thermodynamics of phase transformation	8	Lecture	X Jin & W Li					
Thermodynamics of interfaces	6	Lecture	X Jin & W Li					
Statistics of thermodynamics	6	Lecture	X Jin & W Li					
Thermodynamics of irreversible processes	2	Lecture	X Jin & W Li					
Group assignments	4	Presentation	X Jin & W Li					
Final exam	2	At class	X Jin & W Li					
Regular grade 20% Exam grade 30% Curriculum project 50%								
2 0	David V. Ragone, Thermodynamics of Materials, John Wiley & Sons, 1995							
Nishizawa T	,	2006						
	2010							
David V. Ragone, Thermody	vnamics of Materials, John Wi	ley & Sons, 1995						
		ley & Sons, 1995 d by Hao Shiming, Chemical i	ndustry press,2006					