CONTENTS

1.	Convex functions on real Banach spaces	1
	Subdifferentials of continuous convex functions, Gateaux and Fréchet differentiability, Mazur's theorem.	
2.	Monotone operators, subdifferentials and Asplund spaces	17
	Upper semicontinuity of set-valued monotone operators, characterization of Gateaux and Fréchet differentiability in terms of continuous selections, Preiss-Zajicek generic continuity theorem for monotone operators into separable dual spaces, Asplund spaces and subspaces with separable duals, weak*-slices, subdifferentials of convex functions as maximal monotone operators, local boundedness of monotone operators, Kenderov's generic continuity theorems for maximal monotone operators, weakly compactly generated dual spaces and Asplund spaces.	
3.	Lower semicontinuous convex functions	40
	Extended real-valued convex functions and their subdifferentials, support points, minimal points with respect to special cones, Ekeland's variational principle, Borwein's unification, Brøndsted-Rockafellar theorem, Bishop-Phelps theorems, maximal monotonicity of the subdifferential, maximal cyclically monotone operators are subdifferentials, subdifferentials of saddle functions.	
4.	A smooth variational principle and more about Asplund spaces	64
	Borwein-Preiss smooth variational principle, Ekeland-Lebourg theorem.	
5.	Asplund spaces, the Radon-Nikodym property and optimization	72
	Slices and weak* slices and dentability, RNP, infinite trees, E is an Asplund space means E* has the RNP, duality between weak* strongly exposed points and Fréchet differentiability, perturbed optimization on RNP sets, bounded closed convex RNP sets are generated by their strongly exposed points, Ghoussoub-Maurey theorems.	
6.	Gateaux differentiability spaces.	90
	Gateaux differentiability spaces, equivalence with M-differentiability spaces, duality characterization in terms of weak* exposed points, stability results	
7.	A generalization of monotone operators: Usco maps	97
	Upper semicontinuous compact valued (usco) maps, maximal monotone operators are minimal usco maps, topological proof of Kenderov's generic continuity theorem.	
8.	Notes and Remarks	104
	Background, section by section, as well as suggestions for further reading.	
References		108
Index		113
Index of Symbols		115