## CONTENTS

P	Preface		
1	Introduction		
2	2 Theoretical bases of the work		
	2.1	Introduction to human body movement	12
	2.2	Surface electromyography	28
	2.3	Elementary characteristics of lunge in fencing	48
	2.4	Studies focused on fencing lunge	50
3	SUM	MARY AND DEFINITION OF THE AIM OF THE WORK	55
4	METHODOLOGICAL PROCEDURES		
	4.1	Participants	58
	4.2	Research methods	59
	4.3	Technical data of the devices used in research	60
	4.4	Measured movement and choice of variables	62
	4.5	Measurement procedure	66
	4.6	Inspection of the observed muscles and electrode application	
		for SEMG	67
	4.7	Data analysis	70
5	5 Results		
	5.1	Sequence of muscle activation during the lunge	73
	5.2	Time activation of selected muscles during lunge	77

	5.3	Differences between muscle activation and reaction time	
		during lunge	85
	5.4	Time activation of the selected muscle pairs during lunge	91
6	DISCUSSION		
	6.1	Muscle activation during the lunge	97
	6.2	Difference between selected muscle activation and reaction	
		time during lunge	101
	6.3	Differences in individual activation of pair of muscles	101
7	Conclusions		105
	7.1	Suggestions for sport practice	106
	7.2	Suggestions for further studies and limitations of the research	107
C			109
	Summary		
Re	References		
Th	The abbreviations used in the work		
Fa	Factual register		