

1. Record Nr.	UNINA9910454941103321
Autore	Matthews Gary G. <1949->
Titolo	Introduction to neuroscience [[electronic resource] /] / Gary G. Matthews
Pubbl/distr/stampa	Malden, MA, : Blackwell Science, c2000
ISBN	1-282-18896-8 9786612188961 1-4443-1320-7
Descrizione fisica	1 online resource (243 p.)
Collana	11th hour
Disciplina	573.8 612.80076
Soggetti	Neurophysiology Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Introduction to Neuroscience, 11th Hour; CONTENTS; 11TH HOUR GUIDE TO SUCCESS; PREFACE; Unit I: ORGANIZATION OF THE NERVOUS SYSTEM; 1: The Vertebrate Nervous System; TOPIC 1: THE PERIPHERAL NERVOUS SYSTEM; TOPIC 2: THE CENTRAL NERVOUS SYSTEM; 2: Development of the Vertebrate Nervous System; TOPIC 1: NEURAL INDUCTION IN THE EARLY EMBRYO; TOPIC 2: EARLY DEVELOPMENT OF THE NERVOUS SYSTEM; TOPIC 3: NEURONAL PROLIFERATION AND MIGRATION; Unit II: ELECTRICAL PROPERTIES OF NERVE CELLS; 3: Origin of Electrical Membrane Potential; TOPIC 1: IONIC EQUILIBRIUM; TOPIC 2: STEADY-STATE MEMBRANE POTENTIAL 4: The Action PotentialTOPIC 1: CHARACTERISTICS OF THE ACTION POTENTIAL; TOPIC 2: VOLTAGE-DEPENDENT ION CHANNELS; 5: Synaptic Transmission; TOPIC 1: PRESYNAPTIC EVENTS IN SYNAPTIC TRANSMISSION; TOPIC 2: POSTSYNAPTIC EVENTS IN SYNAPTIC TRANSMISSION; Unit III: SENSORY SYSTEMS; 6: General Characteristics of Sensory Systems; TOPIC 1: SENSORY RECEPTOR NEURONS; TOPIC 2: PROCESSING SENSORY INFORMATION; 7: The Somatic Senses; TOPIC 1: SOMATOSENSORY RECEPTOR NEURONS; TOPIC 2: SPINAL CORD AND BRAIN STEM PATHWAYS FOR SOMATOSENSORY INFORMATION

TOPIC 3: THALAMOCORTICAL PROCESSING OF SOMATOSENSORY INFORMATION; 8: The Visual System; TOPIC 1: PHOTOTRANSDUCTION; TOPIC 2: SYNAPTIC ORGANIZATION OF THE RETINA; TOPIC 3: HIGHER VISUAL PROCESSING; 9: The Auditory System; TOPIC 1: HAIR CELLS AND THE COCHLEA; TOPIC 2: THE AUDITORY SYSTEM OF THE BRAIN; 10: Chemical Senses; TOPIC 1: THE OLFATORY SYSTEM; TOPIC 2: THE GUSTATORY SYSTEM; EXAM: First Midterm Exam; Unit IV: MOTOR CONTROL SYSTEMS; 11: Neural Control of Muscle Contraction; TOPIC 1: EXCITATION-CONTRACTION COUPLING; TOPIC 2: NEURAL CONTROL OF MUSCLE CONTRACTION  
12: Spinal Cord Motor Mechanisms; TOPIC 1: REFLEXES CONTROLLING MUSCLE LENGTH, MUSCLE TENSION, AND LIMB POSITION; TOPIC 2: SPINAL CIRCUITS CONTROLLING LOCOMOTION; 13: Brain Motor Mechanisms; TOPIC 1: CORTICAL AND BRAIN STEM MOTOR SYSTEMS; TOPIC 2: BASAL GANGLIA, THALAMUS, AND CEREBELLUM; 14: The Autonomic Nervous System; TOPIC 1: SYMPATHETIC AND PARASYMPATHETIC DIVISIONS OF THE AUTONOMIC NERVOUS SYSTEM; TOPIC 2: BRAIN SYSTEMS CONTROLLING THE AUTONOMIC NERVOUS SYSTEM; 15: Translating Sensory Information into Motor Signals; TOPIC 1: VESTIBULO-OCULAR REFLEX  
TOPIC 2: BRAIN SYSTEMS CONTROLLING VOLUNTARY EYE MOVEMENTS; Unit V: HIGHER NEURAL FUNCTIONS; 16: The Limbic System: Homeostasis, Motivation, and Emotion; TOPIC 1: ANATOMY OF THE LIMBIC SYSTEM; TOPIC 2: FUNCTIONAL ROLES OF THE HYPOTHALAMUS; 17: Language and Cognition; TOPIC 1: LANGUAGE; TOPIC 2: OTHER COGNITIVE FUNCTIONS; 18: Learning and Memory; TOPIC 1: LONG-TERM POTENTIATION IN THE HIPPOCAMPUS; TOPIC 2: MODIFICATION OF SYNAPTIC STRENGTH IN REFLEX CIRCUITS; Unit VI: MOLECULAR NEUROSCIENCE; 19: Molecular Aspects of Neural Development; TOPIC 1: CELL ADHESION MOLECULES AND NEURITE OUTGROWTH  
TOPIC 2: NEUROTROPHIC FACTORS AND SYNAPSE FORMATION

---

Sommario/riassunto

The 11th Hour Series of revision guides are designed for quick reference. The organization of these books actively involves students in the learning process and reinforces concepts. At the end of each chapter there is a test including multiple choice questions, true/false questions and short answer questions, and every answer involves an explanation. Each book contains icons in the text indicating additional support on a dedicated web page. Students having difficulties with their courses will find this an excellent way to raise their grades. Clinical correlations or everyd

---