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| **دانشکده علوم پیراپزشکی** |
| * + 1. *Binocular vision*
			- 1. Fixation disparity
				2. Hetrophoria strabismus
				3. Amblyopia
				4. Anisometropia anisokonia
				5. Epidemiology of refractive error
		2. psychophysics
			- 1. Contrast sensitivity
				2. Visual acuity
				3. Stereopsis
				4. Color vision
				5. Saccade/ persuite fixation/vestibular optokinetic eye movements
		3. *Refractive errors*
			- 1. Epidemiology of refractive error
				2. Peripheral refractive error
				3. Refractive error surgery
		4. *Contact lens*
			- 1. Orthokeratology
				2. ERG in keratoconus
				3. Scleral and mini scleral lens
				4. Social cognition and behavior
				5. pharmacology
		5. *paediatric*
			- 1. Paediatric eye disorder; genetics
				2. Paediatric contact lens
				3. Vision screening
				4. Paeditric communication
				5. paeditric eye movment
				6. Paediatric Syndroms
				7. Mental retordation and paediatric
				8. Preterm infants
		6. *Electrophysiology*
			- 1. Visual anomaly and ERG
				2. visual anomaly and EOG
				3. visual anomaly and VEP
		7. *Low vision*
			- 1. Visual performance
				2. Reading performance
				3. Examination and Rehabilitation of the patient with LV
				4. Device in low vision rehabilitation
				5. Telescope , magnifiers
				6. electro-optical systems
				7. Anomaly of peripheral field
				8. Anomalies of control fields
				9. non optical system
		8. *Cornea*
			- 1. Dry eye
				2. Biomechanical cornea
				3. Diabetic
				4. Cataract
				5. Glaucoma
				6. Hemophilia and anomaly of vision
 | بینایی سنجی (5) | 1 |
| 1-vestibular1. prevalence of vertigo and vestibular disorders
2. BPPV, meniere’s disease, vestibular neuritis, vestibular ototoxicity.
3. Vestibular assessments
4. Related questionnaires and inventories
5. Vestibular rehabilitation

2-auditory1. Prevalence of hearing loss, tinnitus, auditory processing disorders and otologic disorders.
2. Otosclerosis, otitis media, presbycusis, sudden hearing loss and ototoxicity.
3. auditory assessments
4. Related questionnaires and inventories
5. auditory rehabilitation
 | شنوایی سنجی (1) | 2 |
| E-healthTechnology in health informationClinical information systemElectronic data exchangeDecision support systemsElectronic health recordTelemedicine and telehealthtelerehabilitationMobile healthVirtual realitySimulationNatural language processing (NLP)Web Based health information systemInternet of things (IOT)Ambient assisted livingGamificationNursing informaticsHealth care data and information systemHealth data concept and information governanceData usersData collection standard and principlesDesign paper form and computer viewEnsuring data quality, methodsInformation needsInformation seeking behaviorInformation literacyPatient educationHealth serious gamingPatient empoweringData access and retentionRecord IdentificationFillingRecord trackingRecord retentionRecord DestructionRecord retrievalClassification systems, clinical vocabularies and terminologiesTerminologiesNomenclaturesClassification systems CodingMappingSemantic webTechnology and applications Health information infrastructure, Technology, applicationsDesigning user interfaceComputer applicationComputer securityHealth technology assessment (HTA)Collaboration, analysis and operation in Health information systemInformation system analysisSystem life cyclesSystem development, implementation, evaluationProject managementWork flow designData management and useStatistics and data presentationSocio-temporal analysis Data visualizationPrediction modelsSignal processingResearch and epidemiologyDesign and development research instrumentsData analyticsData qualityBenchmarkingRegistriesData dictionaryMinimum data set (MDS)Big dataData miningDeep learning Machine learningArtificial IntelligenceImage processingHealth care systemRegulatory organizationAccreditationLicensureEvaluationHealth care standardfinancing health carereimbursementmanaged careutilization managementPayersinsuranceLegal and EthicsPrivacy and health lawLegal system and obligationConfidentialityDisclosureInformed consentSecurityPatient rightresponsivenessdata ownershipencryptionOperational managementWork simplificationImprovements methodsProductivitySystems analysis and designStrategic management Human resource managementRevenue cycle and financial managementPatient safetyStaff safetyWorkflow designRisk managementUtilization managementQuality AssessmentMedical educationeLearningQuality assessment | مدارک پزشکی (5) | 3 |
| * + - 1. Diagnostic Radiology

Conventional & Digital RadiologyInterventional RadiologyAngiographyMammographyDental RadiologyContrast MediaImage ArtifactsPatient DosimetryRadiation ProtectionPersonnel DosimetryImaging & Image ProcessingQuality Control* + - 1. Computed Tomography Scan

Multislice CTContrast MediaPatient DosimetryRadiation ProtectionPersonnel DosimetryImaging & Image ProcessingImage ArtifactsQuality Control* + - 1. Magnetic Resonance Imaging (MRI)

Pulse SequencesMR InstrumentsMagnetic Resonance Angiography (MRA)Magnetic Resonance Spectroscopy (MRS)MRI ArtifactsMRI SafetyPatient ScreeningContrast MediaImaging & Image ProcessingQuality Control* + - 1. Radiobiology

Biological Effects of Ionizing RadiationsRadiation Sensitivity FactorsDose-Response RelationshipsRisk EstimatesBiological Effects of Non-Ionizing Radiations* + - 1. Sound & Ultrasound

Imaging & Image ProcessingImage ArtifactsQuality ControlContrast Media* + - 1. Nuclear Medicine

Hot LabGamma CameraSPECTPETDual-modality imaging systemImaging & Image ProcessingImage ArtifactsQuantitative techniquesQuality Control* + - 1. Radiotherapy

LINACBrachytherapyTreatment PlanningPatient DosimetryQuality Control* + - 1. Environmental Radiation

Natural Environmental Radiation MonitoringRadon MonitoringEnvironmental Radiation ProtectionRadiation Effects* + - 1. Lasers & Optics

Imaging & Image ProcessingImage Artifacts* + - 1. Nanomedicine

Molecular Imaging (theranostics nanoparticles)Medical Education* + - 1. Medical Education

Student Assessment & Evaluation   Clinical Skills TrainingClinical Competence Assessment Communication Skills TrainingStudent Characteristics Objective Structured Clinical Exam (OSCE)Professionalism in Medicine  (incl. Attitudes, Cultural Competence, Ethics)Faculty DevelopmentUse of simulations | تکنولوژی پرتو شناسی (5) | 4 |
| * Immunology
1. Cancer Immunology
2. Immunotherapy Cancer
3. Diagnostic Test
4. Tumor Marker
5. Nanotechnology
* Bacteriology

 1. Drug Resistance
2. Bcterial Diagnostic Test Based On PCR And LAMP Techniques
3. Antimicrobial Peptides
* Hematology

 1. Immunohematology
2. Blood Type System
3. HDFN Disease
4. Blood Donation
5. Blood Transfusions And Blood Products
6. Complications Of Blood Transfusion
7. Hemovigilance
8. Hematology
9. Anemia Due To Decreased Production
10. Anemia Due To Increased Degradation
11. Hemorrhagic Anemia
12. Chronic Myeloid Leukemia
13. Acute Myeloid Leukemia
14. Chronic Lymphoid Leukemia
15. Acute Lymphoid Leukemia
16. Platelet And Coagulation System Abnormalities
* Chemistry
1. Lipoxygenase Inhibitors
2. Beta-Lactamase Inhibitors
* Clinical Biochemistry
1. Stem Cell
2. Tissue Engineering
3. Cancer
 | علوم آزمایشگاهی (6) | 5 |
| * + 1. Elderly
1. Techniques for the measurement of gait and posture
2. Normal and pathological gait
3. Treatment of gait and postural abnormalities
4. Biomechanical and theoretical approaches to gait and posture
5. Mathematical models of joint and muscle mechanics
6. Neurological and musculoskeletal function in gait and posture
7. The evolution of upright posture and bipedal locomotion
8. Adaptations of carrying loads
9. Walking on uneven surfaces
10. Climbing stairs
11. Running and performing other movements
12. Spinal biomechanics during usual activities
13. Psychometric properties of commonly-used outcome measurements in neurological disorders including MS, CVA, Parkinson
14. Posture and gait evaluations by single- and dual-task paradigms in neurological disorders including MS, CVA, Parkinson.
15. Association between cognitive-balance function in elderly populations.
	* 1. Electro physical Agents

TENSNeuromuscular electrical stimulationIDCGalvanic currentLaserUltrasoundThermal agents including hot pack and infraredUltravioletDiathermyMicrowave* + 1. Measurement

Reliability and validity of outcome measures including, kinetic and kinematicResponsiveness of outcome measures including, kinetic and kinematicAccuracy of diagnostic measures including, kinetic and kinematic measurement Electromyographic Measurements to explore movement Disorders* + 1. Mental Health

Cognitive therapy in patients with mental health disordersAlzheimer and dementia* + 1. Musculoskeletal

Posture and gait evaluation by single- and dual-task paradigms in musculoskeletal injured patients including low back pain, ACL-injured patients, and ankle injuries.Psychometric properties of commonly used outcome measurements in musculoskeletal injured patients.Physiotherapy for musculoskeletal disordersDiagnostic and therapeutic processesPatient centered careGuidelines for musculoskeletal therapeutics and theoretical models that support developments in assessmentDiagnosis, clinical reasoning, and interventions* + 1. Neurology

CNS autoimmune diseasesTraumatic brain injurySpinal cord injuryGuillain barre syndromeAmyotrophic lateral sclerosis (als)Neuro-oncologyMechanisms of neurodegenerative diseasesAlzheimer’s disease and other dementiasParkinson’s diseaseHuntington’s diseaseCerebral disordersMotor neuron diseasesEpilepsyPsychiatric disorders Association between cognitive-balance function in neurological disordersStroke RehabilitationCognitive disorders* + 1. Orthopedics

Post-operative rehabilitationSpinal column disordersPeripheral joint disordersOsteoarthritisFracturesSport-related injuriesTraumatic injuriesOveruse injuriesInterventional studies for clinical practice guidelines in musculoskeletal disorders including peripheral joints and vertebral columnRehabilitation Developments in Sport Medicine* + 1. Pediatrics

Cerebral palsyErb palsyMotor delayDown syndromeDuchenne syndromeSpina bifidaCognitive disorders Neurodevelopmental disordersNeuromuscular conditionsMusculoskeletal conditionsCardiorespiratory conditionsDevelopmental conditionsPediatric exercise science * + 1. Respiratory

COPD diseaseAsthmaBronchiectasis PneumoniaAirway clearance techniquesActive cycle of breathing techniques* + 1. Rheumatology

Therapeutic methods (exercise, splinting, hydrotherapy, surgery) OsteoarthritisRheumatoid arthritisAnkylosing spondylitisLupus erythematosusPolymyositisScleroderma* + 1. Women's Health

Physical therapy for women’s healthMusculoskeletal disorders following pregnancyPelvic health of children and adultsMusculoskeletal, urological, gynecological systems as well biomechanical foundations and psychosocial aspects* + 1. Tele-rehabilitation
		2. Physical Conditioning
		3. Professional Development
		4. Service Delivery
 | فیزیوتراپی (6) | 6 |
| 1. **Language**
	1. normal development of language in children
	2. biological/ environmental risk factors for normal language development
	3. assessment/ intervention in late talkers/late bloomers
	4. cognition and language
	5. Developmental language disorders
		1. Primary DLD
		2. DLD associated with or secondary to some other developmental disorders
		3. Language learning disorders
	6. Acquired language disorders
		1. acquired language disorders in adults
		2. childhood aphasia/apraxia/agnosia
2. **Speech**

2-1 normal development of speech in children2-2 motor-speech disorders in children2-3 assessment/ intervention in children with oro-facial anomalies2-4 normal voice indicators in Persian children/ adults2-5 pathology/assessment/intervention of fluency disorders (in children/ adults)2-6 normal non-fluency2-7 pathology/assessment/intervention of voice disorders2-8 pathology/assessment/intervention of speech sound disorders1. **Swallowing and feeding**

3-1. Assessment and intervention of swallowing disorders/ feeding problems in neonates3-2. assessment and intervention of swallowing disorders/ feeding problems in children3-3. assessment and intervention of swallowing disorders in adults1. **Developing of assessment tools/measures or interventional guidelines**
2. **Prevalence study**
3. **Interdisciplinary study (Registration/ Life style/Neuroscience/psychological and psychiatric)**
4. **Assessment and intervention of augmentative and alternative communication (AAC) in speech and language disorders**
5. **Bilingualism**
 | گفتار درمانی (5) | 7 |
| OccupationOccupational performanceOccupational balanceNeurological rehabilitationMotorSensory reeducationHand and upper limb rehabilitationFlexor and extensor tendon injury of the handPeripheral nerve injuries of the handHand fracturesSpastic hand due to upper motor lesions1. **Specific diagnosis**

Stroke,MS,Spinal cord injury,traumatic brain injury environment1. **Children**

Neuredevelopmental therapySensory integration therapy Social policy Sensory integration 1. **Specific diagnosis of children:**

CP,Autism,motor delay | کاردرمانی (1) | 8 |
| [Social Worker in Administration, Policy and Research](https://socialworklicensure.org/types-of-social-workers/administration-policy-research)History of social service managementSocial policy implementationOrganizational researchContemporary management and leadership Governance issues facing human service organizations**Child, Family, and youth social Work** Divorce Family problemsDomestic violence preventionFamily empowermentFamily centered Social work interventionsFamily issues Family relationships and parenting Family poverty Family violence Alcohol and other drugs[School Social Work](https://socialworklicensure.org/articles/become-a-school-social-worker)Bullying and anti-social behaviors Disability Social relationships and supports Exclusion of students on the basis of perceived cultural, linguistic or other difference Students in juvenile justice, out-of-home care  Child abuse and neglect Housing and transience Limited community and social supports  Schooling issues Home-school relationship Support for students with disabilitiesEngagement and attendance Need for modified curriculum, wellbeing strategies and learning environment[Community Social Work](https://socialworklicensure.org/types-of-social-workers/community-social-workers)Good governanceSocial policyCitizenshipSocial distance [Criminal Justice Social Work](https://www.mswguide.org/careers/criminal-justice-social-work/)Coping skills trainingLife skills developmentCase managementForensic social work in criminal justice [Gerontological Social Work](https://socialworklicensure.org/types-of-social-workers/gerontological-social-workers)Long-term care insurance issuesStrengths-based and empowerment-oriented ways to work with elderlyElder abuse [Mental Health Social Work](https://socialworklicensure.org/types-of-social-workers/mental-health-substance-abuse)Care giver issues Social work intervention in mental health and Group work with mental illness Forensic social work in mental illness [Palliative and Hospice Social Work](https://socialworklicensure.org/types-of-social-workers/palliative-hospice-social-workers)Hospice Social Work Methods and InterventionsHospice Social Work roles End-of-life careSocial work education 1. Professionalization

Codes of ethic in social workDevelopment of professional social work requirementsDevelopment of educational models of social workSocial work and virtual educationMindfulness in social work training | مددکاری اجتماعی (2) | 9 |