

Senior Professional and Technical Examination for Medical Technologists—Internship Accreditation Criteria

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The criteria is applicable for candidates graduating after June 1, 2013.

Internship subjects, course details, minimum duration, internship sites, and makeup internship are stipulated as follows:

I. Internship subjects, course details, and minimum duration

Subject	Details	Minimum Duration
Clinical biochemistry	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, specimen taking procedures, specimen treatment, introduction to biochemistry instruments and examination types, how biochemistry instruments work and how they are operated, computer-aided examinations, biochemistry quality control, result verification and report producing, and treatment of abnormal and critical values. 2. Hands-on sessions: autoanalyzer operation (including calibration), identification and treatment of pre-analysis abnormal specimen, assessment of external and internal quality control, post-analysis result verification and interpretation, carbohydrates, lipid profiles, cardiac markers, renal function tests, liver function tests, hormone tests, blood gas tests. 	2 weeks (80 hours)
Clinical microbiology	<ol style="list-style-type: none"> 1. Lectures: specimen procedures, specimen collecting, examination types and how they work, P2 Lab bio safety, biochemistry principles, how biochemistry instruments work and how they are operated, quality control, result verification and report producing, treatment of abnormal and critical values. 2. Hands-on sessions: smearing procedures, staining and staining & clinical microscopy, AFS stain interpretation, aerobic bacteria culture and identification, anaerobic bacteria culture and identification, brewer's yeast identification, drug sensitivity test, completion of specimen 	3 weeks (120 hours)

Subject	Details	Minimum Duration
	collection, inoculation and follow-up culture and result interpretation.	
Clinical hematology	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, examination types and how they work, how biochemistry instruments work and how they are operated, blood smearing, blood smearing instruction, result verification and report producing, blood quality control, treatment of abnormal and critical values. 2. Hands-on sessions: sectioning and staining, blood smear interpretation, treatment of abnormal and critical values, CBC, Hemostasis (PT, APTT), WBC classification, RBC morphology. 	2 weeks (80 hours)
Clinical blood banking	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, examination types and how they work, how biochemistry instruments work and how they are operated, blood preparation procedures, blood supply procedures, blood bank quality control, blood bank inventory management, blood transfusion response survey. 2. Hands-on sessions: ABO typing, Rh typing, Antibody screening, Cross-matching test, blood transfusion response survey and analysis. 	1 week (40 hours)
Clinical microscopy	<ol style="list-style-type: none"> 1. Lectures: clinical microscopy introduction to work procedures, specimen taking procedures, specimen treatment, examination types and how they work, how biochemistry instruments work and how they are operated (including microscope), clinical microscopy quality control, result verification and report producing, treatment of abnormal and critical values. 2. Hands-on sessions: Urine routine/urine sediment, pregnancy test, stool routine/occult blood, parasite ova, CSF routine, body fluid routine, semen analysis, blood collecting. 	3 week (120 hours)
Clinical serology & immunology	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, specimen taking procedures, specimen treatment, examination types and how they work, how biochemistry instruments work and how they are operated, result verification and report producing, quality control, treatment of abnormal and critical values. 2. Hands-on sessions: microorganism antigen rapid 	2 weeks (80 hours)

Subject	Details	Minimum Duration
	test, assessment of external and internal quality control, syphilis serum test, microorganism serum test, virus serum test, autoantibody and serum protein test.	
Clinical physiology	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, examination types and how they work, how biochemistry instruments work and how they are operated, electrocardiography, pulmonary function test, others (including electromyogram, electroencephalogram, and ultrasonic), and introduction to first aid. 2. Hands-on sessions: electrocardiography, pulmonary function test, others (including electromyogram, electroencephalogram, and ultrasonic), and CPR. 	2 weeks (80 hours)
Clinical histopathologic & cytologic diagnosis	<ol style="list-style-type: none"> 1. Lectures: introduction to work procedures, cell staining, tissue sectioning and cell smearing & staining methods, cell specimen interpretation, special staining procedures. 2. Hands-on sessions: tissue paraffin section, staining, non-gynecologic and gynecologic smearing and staining, special staining observation, normal and abnormal observations. 	1 week (40 hours)
Molecular diagnosis in medicine	<ol style="list-style-type: none"> 1. Lectures: specimen treatment procedures, specimen taking procedures, examinations and how they work, result verification and report producing, treatment of abnormal results, cellular examination and quality control. 2. Hands-on sessions: nucleic acid extraction, PCR operation and interpretation. 	1 week (40 hours)
Overall internship duration	The minimum total duration for all subjects is 17 weeks (600 hours). Additional weeks (hours) may be required depending on the actual needs in order to meet the required internship duration of 26 weeks (1,040 hours).	20 weeks (800 hours)

II. Internship site: Internship sites must be hospitals which have been recognized as qualified teaching hospitals by Ministry of Health and Welfare.

III. Requirements for makeup internship: For test takers whose internship does not cover all required fields or falls short of time requirements, makeup programs may

be arranged by medical schools or the test taker may contact any of the qualified hospitals for a make-up internship. Internship sites should provide documents proving the test taker has completed the required internship.

IV. Format for internship and make-up internship certificates is stipulated by MOEX in Appendixes 1 and 2.