Modul designation	Dermatomusculoskeletal System
Semester in which the module is taught	2nd Semester of Academic/Bachelor Stage
Person responsible for the module	<ol> <li>Miranti Kania Dewi</li> <li>Tita Barriah Sidiq</li> <li>Eka Hendryanny</li> <li>Cice Tresnasari</li> <li>Mia Yasmina</li> </ol>
Language	Bilingual (Indonesia & English)
Relation to curriculum	Compulsory
Teaching methods	<ul><li>Lecture</li><li>Tutorial</li><li>Laboratory activity</li></ul>
Workload	Total workload : 7 weeks
	Contact hours: Lecture 2 hours/week  Tutorial 3 hours/meeting (3 meeting/week)  Laboratory activity 3 hours/meeting
Credit points	10 ECTS (7 SKS)
Required & recommended prerequisites for joining the module	Learning course at first semester
Module Objective	At the end of course, students will be able to:
	<ol> <li>Describe the embryological process and development of skin, skin adnexa, skeletal muscle &amp; bones (osteogenesis). (C2)</li> <li>Explain the macrostructure of the upper extremities, lower extremities, and back (topography, regions, bones, muscles, joints, vascularization, innervation, lymph nodes) (C2)</li> <li>Relate the concept of the macrostructure of the upper extremities, lower extremities, and back (topography, regions, bones, muscles, joints, vascularization, innervation, lymph nodes) with musculoskeletal disorders (C4)</li> <li>Explain the microstructure of skin, skin adnexa, skeletal muscle, and bones (compact &amp; cartilage). (C2)</li> <li>Relate the concept of skin microstructure, skin adnexa, skeletal muscle, and bone (compact &amp; cartilage) with dermatomusculoskeletal disorders. (C4)</li> </ol>

- Explain the functions and physiological processes of the skin.
   (C2)
- 7. Relate the function and physiological processes of the skin to dermatological disorders. (C4)
- 8. Explain the functions and physiological processes of skeletal muscles. (C2)
- 9. Relate the function and physiological processes of skeletal muscles to musculoskeletal disorders. (C4)
- 10. Explain the function and physiological processes of bones and joints. (C2)
- 11. Relate the function and physiological processes of bones and joints to musculoskeletal disorders. (C4)
- 12. Explain the morphology, properties, and virulence of microorganisms related to infections of the skin, muscles, and bones according to the rules of basic medical science. (C2)
- 13. Explain the morphology and life cycle of parasites related to infections of the skin, muscles and bones according to the rules of basic medical science. (C2)
- 14. Explain the principles of clinical laboratory examination and microbiology in dermatomusculoskeletal disorders. (C2)
- 15. Explain the principles of histopathological examination of dermatomusculoskeletal disorders. (C2)
- 16. Explain the principles of radiological examination of dermatomusculoskeletal disorders. (C2)
- 17. Explain the principles of treatment & pharmacological properties of drugs for dermatomusculoskeletal disorders. (C2)
- 18. Apply the principles of microorganism examination, laboratory examination, radiological examination, and treatment of dermatomusculoskeletal disorders according to the principles of basic medical science. (C3)
- 19. Explain the definition and etiology of skin disorders using the principles of clinical medicine. (C2)
- 20. Explain the definition and etiology of skeletal muscle disorders in accordance with the rules of clinical medicine. (C2)
- 21. Explain the definition and etiology of bone and joint disorders in accordance with the rules of clinical medicine. (C2)
- 22. Review the classification, clinical manifestations, and efflorescence based on the pathogenesis and pathophysiology of skin disorders. (C4)
- 23. Review the classification and clinical manifestations based on pathogenesis and pathophysiology of skeletal muscle disorders. (C4)
- 24. Review the classification and clinical manifestations based on the pathogenesis and pathophysiology of bone and joint disorders. (C4)
- 25. Analyze differential diagnoses, diagnostic investigations, management, education, prognosis, and complications of skin

	disorders based on principles according to basic medical science and clinical medical science according to the rules of
	bioethics, humanities and Islamic values. (C4) (A4)  26. Analyze differential diagnosis, diagnosis, supporting examinations, management, education, prognosis and complications in skeletal muscle disorders based on principles according to basic medical science and clinical medical science
	according to the principles of bioethics, humanities, and Islamic values (C4)(A4)
	27. Analyze differential diagnosis, diagnosis, supporting examinations, management, education, prognosis and complications in bone and joint disorders based on principles according to basic medical science and clinical medical science according to the rules of bioethics, humanities and Islamic values (C4)(A4)
	28. Explain the problems and principles of medical rehabilitation for musculoskeletal disorders. (C2)
	29. Apply trauma management principles in accordance with Advanced Trauma Life Support principles. (C3)
Content	The study materials in Dermatomuscular System include biomedical sciences (physiology, anatomy, embryology, histology)
Examination forms	Multidisciplinary Examination (MDE), SOOCA, Lab exam
Study and examination requirements	System Pass Criteria :  Minimum MDE, SOOCA and Lab exam score 55.5 (C)
Reading list	<ol> <li>Guyton &amp; Hall, Textbook of Medical Physiology. 11th Edition. Elsevier Saunder</li> <li>Seeley RR., VanPutte C., Regan J., Russo AF. Seeley's Physiology&amp; Anatomy. 11th Edition</li> <li>Moore KL., Dalley AF., Agur AMR., Clinically Oriented Anatomy. 8th edition. Lippincott Williams &amp; Wilkins, A Wolters Kluwer Business.</li> <li>Netter: Musculoskeletal System vol. 6 Biology &amp; Systemic Disease</li> <li>Mescher AL., Junqueira's Basic Histology Text &amp; Atlas., 13th Edition. Mc Graw Hill-Lange</li> <li>Wallen K. Lippincott Illustrated Review: Pharmacology. 6th edition. Wolters Kluwer.</li> <li>Brunicardi FC., Andersen DK., Billiar TR., Dunn DL., Hunter JG., Pollock RE., Schwartz's Manual of Surgery. Eight Edition. Mc Graw Hill Inc. New York</li> <li>Buku Ajar Bedah. Edisi ke-4. Wim De Jong - Sjamsuhidajat</li> <li>David N., Total Burn Care. 5th Edition. Elsavier</li> <li>Solomon L, Warwick D, Nayagam S. Apley's System of Orthopaedics and Fractures. 9th edition. Butterworths</li> </ol>

- 11. Salter RB. Textbook of Disorders of the Musculoskeletal System.
- 12. Advanced Trauma Life Support (Student Course Manual). 9<sup>th</sup> Edition. American College of Surgeons
- 13. Wolff K, Goldsmith LA, Katz SI, et all. Fitzpatrick's Dermatology in General Medicine. 7th edition. McGraw-Hill Companies, Inc
- 14. Odom RB, James WD, Berger TG. Andrews` diseases of the skin. 9th ed
- 15. Buku Ilmu Kedokteran Fisik dan Rehabilitasi, Perdosri
- 16. Treatment and rehabilitation of fracture, Stanley Hoppenfeld and Vasantha L Murthy, Lippincott
- 17. Braddom's Physical Medicine and Rehabilitation, 5th Ed
- 18. Fauci AS., Braunwald E., Kasper DL., Hauser SL., Longo DL., Jameson JL., et al. Harrison's Principle of Internal Medicine. Mc Graw Hill. 17<sup>th</sup> Edition