Parasitology

Lectures: 2 hours/week for 7 weeks Total: 14 hours

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| Lecture | Topic | ILOs |
| 1 | Introduction to parasitology I  (definitions and terminology)  A13.1, A14.1,A15.1, B9.1 | * Define the different terms of medical parasitology. * State parasitism and host-parasite relationship. * List the different types of hosts. * Explain host-parasite relationships. |
| 2 | Introduction to parasitology I  (methods of infection and stages)  A16.1, A17.1,A18.1  B8.1, B9.1 | * List the sources of parasitic infections. * Memorize the methods of infection of common parasites. * Recall the infective and diagnostic stages of common parasites. * Demonstrate different types of parasitic infections. * Explain host-parasite relationships. |
| 3 | Introduction to Platyhelminthes  A14.2, A18.2, A17.2  B8.2, B9.2 | * Identify general life cycle of trematodes and cestodes. * Recall and differentiate the infective and diagnostic stages of common trematodes and cestodes. * Memorize common symptoms of infection with Platyhelminthes. * Demonstrate different types of Platyhelminthes infections. * Explain host-parasite relationships in Platyhelminthes. |
| 4 | Introduction to Nematodes  A14.3, A17.3, A18.3  B8.3, B9.3 | * Identify general life cycle of common nematodes. * Recall and differentiate the infective and diagnostic stages of common nematodes. * Memorize common symptoms of infection with nematodes. * Demonstrate different types of nematodes infections. * Explain host-parasite relationships in nematodes. |
| 5 | Introduction to Protozoa  A14.4, A17.4, A18.4  B8.4, B9.4 | * Identify medically important protozoa. * Understand life cycle’s needs for common protozoa. * Recall and differentiate the infective and diagnostic stages of common protozoa * Demonstrate different types of protozoal infections. * Explain host-parasite relationships in protozoa. |
| 6 | Introduction to Medically important arthropods I  A15.2, A15.3, A16.2,A18.5, B9.5 | * List arthropods that act as vectors of diseases to human. * Memorize morphology of medically important arthropods. * List diseases transmitted by arthropods. |
| 7 | Introduction to Medically important arthropods II and Immunoparasitology.  A16.3, A19.1  B8.4, B9.6, B11 | * List the role of arthropods in parasitic global health problems. * Mention principles of immunoparasitology. |

Practical: 2 hours/week for 7 weeks Total: 14 hours

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| session | Topic | ILOs |
| 1 | Stool analysis  (direct smear)  C1.1,C7.1, B10.1 | * Handle the microscope. * Operate routine techniques used in medical parasitology. * Differentiate parasitic stages. |
| 2 | Introduction to Platyhelminthes  (trematodes)  C1.1, C6.1, A18.1 | * Handle the microscope. * Identify the infective and diagnostic stages of common trematodes under microscope * Recall the infective and diagnostic stages, and adults of common trematodes. |
| 3 | Introduction to Platyhelminthes  (cestodes)  C1.1, C6.1, A18.2 | * Handle the microscope. * Identify the infective and diagnostic stages of common cestodes under microscope * Recall the infective and diagnostic stages, and adults of common cestodes. |
| 4 | Introduction to Nematodes  C1.1, C6.1, A18.3 | * Handle the microscope. * Identify the infective and diagnostic stages of common nematodes under microscope * Recall the infective and diagnostic stages, and adults of common nematodes. |
| 5 | Giemsa’s Staining  C1.1, C6.1, C7.2 | * Handle the microscope. * Identify the infective and diagnostic stages of malaria, Toxoplasma and filarial worms. * Operate routine techniques used in medical parasitology. |
| 6 | Intestinal protozoa  C1.1, C6.1 | * Handle the microscope. * Identify the infective and diagnostic stages of common protozoa under microscope. |
| 7 | Medically important arthropods  C1.1, A15.2, A15.3, A16.2 | * Handle the microscope. * Identification of medically important arthropods. |

Group discussion: 1 hours/week for 7 weeks Total: 7 hours

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| Lecture | Topic | ILOs |
| 1 | Bilharziasis  D1-D10  A16.1, A17.1,A18.1 | * General skills are stated early in the block. * State general life cycle of *Schistosoma*. * List different stages of Schistosoma. * List community impact of Bilharziasis. |
| 2 | Zoonotic parasitic diseases  D1-D10  A13.1, A14.1, A17 | * General skills are stated early in the block. * Define the term zoonosis. * List zoonotic parasitic diseases. * Memorize diagnostic and infective stages. |
| 3 | Autoinfection in parasitic diseases  D1-D10  A13.1, A14.1, A17  B9, B10,B11 | * General skills are stated early in the block. * Define the term autoinfection. * List parasitic diseases in which autoinfection can occur. * Memorize diagnostic and infective stages. * Explain host-parasite relationships. * Differentiate between the infective and diagnostic stages of different parasites * Interpret the immune response to the parasitic infection. |
| 4 | Life threatening nematode infection  D1-D10  A14.3, A17.3, A18.3  B8.3, B9.3 | * General skills are stated early in the block. * List nematodes causing chronic diarrhea. * Memorize diagnostic and infective stages. * Demonstrate different types of nematodes infections. * Explain host-parasite relationships in nematodes. |
| 5 | Cryptosporidiosis  D1-D10  A14.4, A17.4, A18.4  B8.4, B9.4 | * General skills are stated early in the block. * Describe life cycle of *Cryptosporidium*. * Memorize diagnostic and infective stages. * Demonstrate different types of *Cryptosporidium* infections. * Explain host-parasite relationships. |
| 6 | Mosquito transmitted diseases.  D1-D10  A15.2, A15.3, A16.2,A18.5, B9.5 | * General skills are stated early in the block. * List different genera of mosquitoes. * List diseases transmitted by mosquitos. * Describe role of mosquitos in arboviruses epidemics. |
| 7 | Eosinophilia in parasitic diseases.  D1-D10  A19.1,B11 | * General skills are stated early in the block. * List parasites causing eosinophilia. * Interpret the role of eosinophils in immunoparasitology. |

Seminars: 1 hour/week for 7 weeks Total: 7 hours

* It will be dedicated to cover and answer unclear points of lectures and group discussion topics.

Cases: 1 hour/ case proposed 3rd and 6th weeks Total: 2 hours

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| Case | Topic | ILOs |
| 1 | A case of hepatosplenomegaly  B8, B9, B10 | * Demonstrate different parasites causing hepatosplenomegaly. * Explain host-parasite relationships. * Differentiate between the infective and diagnostic stages. |
| 2 | A case of diarrhea  B8, B10, A16 | * Demonstrate different parasites causing diarrhea. * List the sources of parasitic infection. * Differentiate between the infective and diagnostic stages. |

Self-directed learning: 1 hour/ session proposed and weeks Total: 2 hours

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| Case | Topic | ILOs |
| 1 | Culture in parasitic infections  D1-D10  B8, B10, A18 | * General skills are stated early in the block. * Demonstrate different culture techniques for parasites. * Differentiate between the infective and diagnostic stages. * Recall infective and diagnostic stages. |
| 2 | Staining techniques for stool examination  D1-D10  A17, A18 | * General skills are stated early in the block. * List different stains that can be used in stool examination. * mention advantages and disadvantages. * Recall diagnostic stages. |