

**Research Seminar in Parasitism
BIOLOGY 403 01
E.E. JUST HALL ROOM 142
WEDNESDAY
1:10 PM -3:00 PM
SPRING SEMESTER 2013**

Instructors

**Dr. Clarence M. Lee, Ph.D
Dr. Mohammad Ashraf, Ph.D.**

COURSE DESCRIPTION

This course allows students to discuss major problems in Parasitism. The students review parasites, especially those that cause morbidity and mortality in animals. The emphases will be on current observations (especially techniques, results and discussion). Students are also allowed to present the results of their research.

OBJECTIVES: By the end of the course a student should be able to:

- plan, design and execute a scientific investigation in parasitism;
- have developed competence with techniques and instrumentation used for scientific investigations in parasitism;
- critically appraise and interpret scientific data and present results in both written and verbal forms;
- prepare the results of an investigation in a format suitable for publication in a refereed scientific journal or in the format of a dissertation; and
- to participate as part of a research team to undertake comprehensive investigations under general supervision

A. ORAL REPORTS/ABSTRACTS

Each Student will be asked to select a recent published paper in journals such as Immunology, Experimental Parasitology, Journal of Parasitology, or American Journal of Tropical Medicine and Hygiene or related journals. The abstracts are restricted to articles written between 2009-2013. As far as possible, they should be related to your research topic.

As you prepare for your abstracts, please follow these guidelines:

1. A well prepared abstract enables readers to identify the Basic Content of a document quickly and accurately, to determine its relevance to their interests and thus to decide whether they need to read the document in its entirety.
2. The abstract should not exceed 300 words and should be designed to define clearly what is dealt with in the paper (in your own words).
3. The abstract should:
 - a. State the principal objectives and scope of the investigation;
 - b. Describe the methodology employed;
 - c. Summarize the results, and state the principal conclusion;
(what the observations were; the meaning of the observations)
 - d. List the principal references used in the publication.
4. All abstracts should be typed and submitted at least one week (5 class days) prior to the presentation.

B. SEMINAR SCHEDULE

WEEK I	Organizing the Topics
WEEK II	Library and Literature Work
WEEK III	Discussion of Current RESEARCH Topics
WEEK IV	Discussion of Current/RESEARCH Topics
WEEK V	Discussion of Current /RESEARCH Topics
WEEK VI	Discussion of Current/RESEARCH Topics
WEEK VII	Discussion of Current/RESEARCH Topics
WEEK VIII	Discussion of Current/RESEARCH Topics
WEEK VIII	Discussion of Current/RESEARCH Topics
WEEK IX	Discussion of Current/RESEARCH Topics
WEEK X	Discussion of Current/RESEARCH Topics
WEEK XI	Discussion of Current/RESEARCH Topics
WEEKS XII-XIV	Presentation of Research/Discussion of Current Topics

Note- Students should be prepared to discuss a current issue in Parasitology or a research topic at each seminar period.

C. GRADING

Total Possible Score

Grading Requirements

Abstract #1-----	100 points
Abstract #2-----	100 points
Abstract #3-----	100 points
Abstract #4-----	100 points
Abstract #5-----	100 points

Total Points 500

Grading (the traditional grading scale, based on 100% will be used)

SPRING BREAK- March 9-17, 2013

Last Day of Class- April 25, 2013

D. Office Appointments

Conferences can be arranged by contacting Dr. Lee (202) 865-8568; or by email- cmlee@howard.edu; Dr. Ashraf (202) 800-6902 or by email- mashraf@howard.edu

In order to check assignments, prior to the next class, please plan to check your email at least every 24 hours.

E. SELECTED REFERENCES

Anderson R.C. 2010. Nematode Parasites of Vertebrates their development and transmission (3rd edition). CABI Publishing, Oxon, UK,.

Noble E.R., Noble G.A., Schad G.A. & MacInnes A.J. 2008. Parasitology: The Biology of Animal Parasites (6th edition) Lea & Febiger, London, UK,.

Samuel W.M., Pybus M.J. & Kocan A.K. (eds.) 2007. Parasitic Diseases of Wild Mammals (2nd edition), Iowa State University Press, Ames, USA,.

Schmidt G.D. & Roberts L.S. 2009. Foundations of Parasitology (8th edition), McGraw Hill, USA,.

References provided by the presenter that is directly related to his/her research

F. RESOURCES IN PARASITOLOGY

HU Science librarian

consult the HU library's new plagiarism site
(<http://www.howard.edu/library/Assist/Guides/Plagiarism.htm>)

(http://www.plagiarism.org/learning_center/what_is_citation.html(required reading)

[Acta Parasitologica](#) formerly Acta Parasitologica Polonica founded in 1953 by the Polish Parasitological Society

[American Association of Veterinary Parasitologists \(AAVP\)](#)

[American Society of Parasitologists](#)

[American Society of Tropical Medicine & Hygiene \(ASTMH\)](#) the principal organization in the United States representing scientists, clinicians and others with interests in the prevention and control of tropical diseases through research and education

[Annals of Tropical Medicine and Parasitology](#) Taylor & Francis

[Australian Society for Parasitology \(ASP\)](#) objectives are to: foster association of persons interested in parasitology, foster establishment and proper curation of collections of Australian parasites, and promote investigation and advance knowledge of parasitology by facilitating interaction and discussion

[Biosystematics & the US National Parasite Collection](#) maintained by the Agricultural Research Service in Beltsville, Maryland, completed its first century of service to parasitologists in 1992

[British Society for Parasitology \(BSP\)](#) aims to advance the study of parasitology, promote interest and discussion, aid training and education, and disseminate information about recent advances through its regular newsletter and meetings

[Canadian Society of Zoologists Parasitology Section](#) established in 1974 to promote and advance the study of parasitic organisms and facilitate the exchange of information among parasitologists in Canada, the only national organization of parasitologists in Canada

[Cancer Cell](#)

[Carlo Denegri Foundation Italy](#) promotes study of infectious, tropical, and parasitic diseases in Torino and the surrounding Piemonte region, includes an Atlas of Medical Parasitology

[Careers in Parasitology](#) from the American Society of Parasitologists

[CELLS alive!](#) various links

[Cell Regulation](#)

[Centre for Applied Entomology and Parasitology \(CAEP\)](#) University of Keele UK

[Centre for the Epidemiology of Infectious Disease](#) Department of Zoology University of Oxford UK

[Centre for Parasite Biology \(CPB\)](#) an organisation within the University of Edinburgh that acts as a focus for teaching and research in all aspects of parasitology in the Edinburgh area

[Charles University \(Prague\) Department of Parasitology and Hydrobiology](#)

[Common Names of Plant Diseases](#) searchable database from the American

Phytopathological Society

[Czech Society for Parasitology](#) members of the Society assert their activity in basic and applied research, teaching at universities, hygienic service, diagnostic laboratories with human as well as veterinary orientation and other places where knowledge of parasites is required

[Daniel Shapiro's Zoonosis Page](#)

[Daphnia-Parasite Picture Gallery](#)

[Department of Parasitology](#) Chiang Mai University

[Deutsche Gesellschaft für Parasitologie \(DGP\)](#) the German Society for Parasitology, a non-profit making society based in Frankfurt/Main, Germany

[Diagnosing medical parasites through coprological techniques](#) online book

[Directory of Parasitologists](#)

[Directory of Parasitologists in Canada](#) originated from the hard-copy publication, Directory of Parasitologists in Canada, Second Edition 1996, published under the auspices of the Biological Survey of Canada, the Canadian Museum of Nature, and the Canadian Society of Zoologists

[Diseases of Aquatic Organisms](#) contents and abstracts

[DPDx — CDC Parasitology Diagnostic Web Site](#) Division of Parasitic Diseases at the National Center for Infectious Diseases, Centers for Disease Control & Prevention

[Dugesia](#) the anatomy of the turbellarian flatworm *Dugesia tigrina*, commonly known as planaria (part of online university biology course)

[Ecological Database of the World Insect Pathogens \(EDWIP\)](#) information on fungi, viruses, mollicutes and bacteria infectious in insects, mites and related arthropods, Center for Economic Entomology Illinois Natural History Survey

[Ecto- and Endo-Parasites](#) a directory of academic links to ecto- and endo-parasites in medical and veterinary parasitology, Southampton University UK

[Ectoparasites and Endoparasites](#) a directory of academic links to Ectoparasites and Endoparasites, Medicine and Veterinary Science

[Ege University Medical Faculty Department of Parasitology](#)

[Essential Cell Biology: An Introduction to the Molecular of the Cell](#)

[European Federation of Parasitologists](#) founded in Jablonna, Warszawa, Poland in 1996, to promote the exchange of knowledge and the coordination of scientific research in the field of parasitology in Europe

[Experimental Parasitology](#) Academic Press

[Folia Parasitologica](#) Institute of Parasitology, Academy of Sciences Czech Republic

[Harold V. Manter Laboratory of Parasitology and Division of Parasitology](#) University of Nebraska State Museum

[Hebrew University — Hadassah Medical School](#) Department of Parasitology

[Helminthologia](#) Slovak Academy of Sciences

[Helminthological Abstracts](#) CABI

[Helminthological Society of Washington](#) founded in 1910 to foster and discuss current research on animal parasites, primarily but not limited to the helminths of humans, domestic and wild animals, and plants

[Homepage of Parasites](#) a place for exchange of ideas, software, sites and opinions about parasites, especially evolution and systematics

[Host-Parasite Database](#) Natural History Museum, London — outlines criteria for

searching database maintained in Parasitic Worms Division, with sample searches
[Host-Parasite Evolution Research Group](#) University of Basel, Switzerland
[Hungarian Society of Parasitologists \(HSP\)](#) Magyar Parazitológusok Társasága (MPT)
[Hypodermosis database](#) bibliographic database created by the library service of the Unit
for Avian Pathology and Parasitology of the INRA Research Centre of Tours-Nouzilly
[Indian Society for Parasitology](#)
[Infectious Diseases and Parasites of Commercially Exploited Shellfish](#) synopsis,
Fisheries and Oceans Canada
[Institute of Arthropodology and Parasitology \(IAP\)](#) an interdepartmental organization at
Georgia Southern University, where the US National Tick Collection is housed
[Institute of Parasitology](#) Academy of Sciences, Czech Republic
[International Ichthyoparasitology Newsletter](#)
[International Journal for Parasitology](#) see also [journal homepage](#)
[Japanese Journal of Parasitology](#) in future to be published by Elsevier as Parasitology
International
[Japanese Society of Parasitology](#)
[Journal of Helminthology](#) CABI
[Journal of Parasitic Diseases](#) Indian Society for Parasitology, contents to latest issue
[Journal of Parasitology](#) American Society of Parasitologists; also available via [Allen
Press](#)
[Korean Journal of Parasitology](#)
[Korean Society for Parasitology](#) founded in 1959 in Seoul, to pursue the improvement of
knowledge on parasites and parasitic diseases and exchange scientific accomplishment
with foreign scientists
[Laboratoire de Biologie Parasitaire, Protistologie, Helminthologie](#) Muséum National
d'Histoire Naturelle, Paris
[Laboratoire de Taxonomie des Vecteurs](#) ORSTOM, France, studies the taxonomic status
of hematophagous insects (mosquitoes, horse flies, sandflies, biting midges, black flies,
tse-tse flies, ticks, etc...) and creates data processing tools for vector identification
[Laboratory of Parasitology](#) Zoological Institute St Petersburg
[Liverpool School of Tropical Medicine, Division of Parasites & Vector Biology](#)
[Louisiana State University Medical Center New Orleans](#) Department of Microbiology,
Immunology and Parasitology
[Malaria Foundation International](#) provides a gateway to internet resources concerning
global problems with malaria
[McGill University Institute of Parasitology](#) Montreal, Canada
[Microbiology and Immunology Online — Parasitology](#) University of South Carolina
School of Medicine, textbook derived from medical microbiology course lectures
[Molecular Analysis of Symbiosis](#) research in molecular analysis of symbiotic
relationships
[Molecular Aspects of Medicine](#)
[Molecular and Biochemical Parasitology](#) Elsevier — journal of investigations on
molecular biology & biochemistry of parasitic protozoa & helminths and interactions
with their hosts
[Molecular Parasitology Network](#) portal site
[Molecular and Cellular Biology](#)

[Molecular Biology of Virus-Cell interactions](#)

[OnchoNET](#) onchocerciasis information repository

[ParaDis](#) parasites and distribution - a negative binomial distribution software, running on PC/DOS

[Parasite](#) journal of the Société Française de Parasitologie

[Parasite Genome Laboratory](#) University of Cambridge UK

[Parasite Genomes Web Site](#) to provide information on advances in the various parasite genome projects and links to the parasite genome "networks"

[Parasitic Diseases website](#) MIC-KIBIC at the Karolinska Institute

[Parasite-genome discussion list](#) Mailbase mailing list servicing researchers involved in the competing aspects of parasite genome research, in particular the development of ACEDB based databases for analysis and display of genome information

[Parasite Immunology](#) an international journal devoted to research on parasite immunology in the general sense, with emphasis placed on how hosts control parasites, and the immunopathological reactions which take place in the course of parasitic infections

[Parasites and Parasitological Resources](#) Ohio State University

[Parasites on the Web](#) links to parasite internet sites

[Parasitologia al Dia](#) official publication of Sociedad Chilena de Parasitología y de la Federación Latinoamericana de Parasitólogos (FLAP)

[Parasitological Research Groups and Societies](#) world wide list by continent

[Parasitological URLs](#) David Gibson's list of web resources of interest to parasitologists

[Parasitology](#) Cambridge University Press

[PARASITOLOGY/bionet.parasitology Newsgroup Archive](#)

[Parasitology Diagnostic Services](#) Oklahoma State University College of Veterinary Medicine

[Parasitology in Düsseldorf](#) Heinrich-Heine University

[Parasitology Group Homepage](#) Aberystwyth University, Wales, research group covers a broad range of parasitological research from the molecular to ecosystem level

[Parasitology Images List](#) a collection of images of medically important parasites

[Parasitology International](#) international journal of the Japanese Society of Parasitology (formerly Japanese Journal of Parasitology), see also [journal homepage](#)

[Parasitology News](#) published by the British Society for Parasitology

[Parasitology Online](#) Elsevier, group of specialized journals for parasitologists

[Parasitology Research](#) Springer

[Parasitology Research Group](#) University of Glasgow

[Parasitology resources](#) Pasteur Institute

[Parasitology at University Erlangen-Nurnberg](#)

[Phytoparasitica](#) Israel Journal of Plant Protection Sciences uuu

[Plasmodium Genome Database](#) a relational database for sequence retrieval etc of *Plasmodium falciparum* genome information

[Quantitative Parasitology](#) statistical tools to describe parasitic infection of a sample of hosts

[QUT Parasitology Pages](#) Queensland University of Technology

[Royal Society of Tropical Medicine & Hygiene \(RSTMH\)](#) British organisation promoting health and advancement of the study, control and prevention of disease in man and other

animals in warm climates, facilitation of discussion and exchange of information among those who are interested in tropical diseases, and promotion of the work of those interested in these objectives

[SciCentral: Best Parasitology Directories](#)

[Soci t  Fran aise de Parasitologie](#) French Society of Parasitology — created in 1992 to help to achieve parasitology progress and scientific exchange among researchers, and to promote a comparative parasitology

[Society for Vector Ecology](#) concerned with all aspects of the biology, ecology, and control of arthropod vectors

[SYMBIOSIS-RESEARCH](#) BIOSCI/bionet.biology.symbiosis newsgroup archives

[Systematic Parasitology](#) Kluwer Academic Publishers

[Trends in Parasitology](#) (formerly Parasitology Today), see also [journal homepage](#)

[Trypanosomiasis and Land Use in Africa \(TALA\)](#) Oxford University Dept of Zoology

[Trypnews On-line](#) an initiatives to involve colleagues worldwide and exchange information in a dynamic way as well as to strengthen the Trypnet (Hemoparasite Information Network)

[Tulane University Department of Tropical Medicine](#)

[Turkish Society for Parasitology \(TSP\)](#)

[University of Berne Institute of Parasitology](#) Switzerland

[University of Queensland](#) Department of Microbiology & Parasitology, Australia

[Veterinary Parasitology](#) journal covering aspects of protozoology, helminthology & entomology of interest in animal health & veterinary sciences, see also [journal homepage](#)

[Warwick University Ecology and Epidemiology](#)

[WHO Tropical Diseases Resources](#)

[World of Parasites](#) McGill University, find out which parasites are found around the world, what diseases they cause, and see pictures of them

[World Federation of Parasitologists \(WFP\)](#)

[WormLearn](#) an online parasitology information package

[Parasite Portfolio](#) www.biosci.ohio-state.edu/~parasite/home.html

G. Statement on ADA Procedures

Howard University is committed to providing an educational environment that is accessible to all students. In accordance with the policy, students in need of accommodations due to disability should contact the Office of the Dean for Special Students Services for verification and determination of reasonable accommodations as soon as possible after admission to the University, or at the beginning of each semester. The Dean of the Office of Special Services can be reached at 202 806-2420.