

Lecture Instructor

Vamsi Nalam

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Office Location

C030 Plant Sciences

Office Hours

W 9:30 AM – 10:30 or by
appointment

C030 PLSCI

Laboratory Instructor

Becky Lyon

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Laboratory Sections in E009 PLSCI

L01 1:00 – 2:40 T

L02 3:00 – 4:40 T

L03 1:00 – 2:40 R

L04 1:00 – 2:40 W

Office Hours in E009

T 12:30 – 1:00

R 12:30 – 1:00

Or by appointment

Course Overview

To develop an understanding of the major concepts and principles of plant pathology, to become familiar with several important plant pathogens and be able to determine the most efficient, environmentally sound methods of disease control.

Required Text

- Essential Plant Pathology 2nd Edition; 2010; Schumann & D'Arcy; APS Press
- 2 copies of the textbook will be on 2-hour reserve in the Library

Laboratory Manual

- Elements of Plant Pathology Laboratory Manual
BSPM361; Available at CSU Bookstore

Course Learning Objectives

1. Introduce students to the basic principles and concepts of plant pathology.
2. Familiarize students with the basic vocabulary of plant pathology and plant disease management
3. Introduce and illustrate the major groups of organisms that cause plant diseases.
4. Enhance student's understanding of scientific research, especially as it applies to the science of plant pathology and the study of microorganisms.
5. Explain the impact of plant disease on human affairs.
6. Prepare students for additional classes in Plant Pathology and related disciplines.
7. Provide a framework that students can use in their profession to best approach plant disease management.
8. Improve the written and oral communication skills of students through class, group and individual projects.

Grading

Final grades will be a combination of assignments, activities, quizzes and exams both in the lecture and in the laboratory. The lecture component of the course will represent 67% (470 points) of your total grade. The lab component of the course will represent 33% (230 points) of your total grade.

<i>Lecture</i>		Points
Exams	100 points x 3	300
ALEs*	5 points x 10	50
Quizzes/Homework	20 points x 6	120
<i>Total Lecture Points</i>		470
<i>Lab</i>		
Koch's Postulates Report		50
Quizzes	10 points x 10	100
Experimental Journal		40
Participation		40
<i>Total Lab Points</i>		230
TOTAL POINTS		700

* ALEs – Active Learning Exercises – In class questions based on material covered in that days' lecture.

Letter grades will be assigned according to the standard scale:

97 - 100 = A+	93 - 96.7 = A	90 - 92.9 = A-
87 - 89.9 = B+	83 - 86.9 = B	80 - 82.9 = B-
77 - 79.9 = C+	73 - 76.9 = C	70 - 72.9 = C-
67 - 69.9 = D+	63 - 66.9 = D	60 - 62.9 = D-
Below 60 = F		

Grading will be based on CSU Grading Policies (<http://catalog.colostate.edu/general-catalog/academic-standards/grading/>).

The exams/quizzes will include multiple choice and short answer questions.

Course Prerequisites

None

Course Home Page

Canvas: All course materials including lectures PowerPoints, syllabus, supplemental reading will be available on the course website AT Canvas, CSU's online learning system (<http://info.canvas.colostate.edu/login.aspx>). Please check the site regularly for important announcements, exam and quiz scores, and study guides etc. You will also take quizzes online on the course Canvas site. Please get in touch with me immediately if you cannot access the Canvas website for some reason.

Canvas Email System Utilization

Using the University's systems or networks for personal gain; for example, by selling access to your eID or to university systems or networks, or by performing work for profit with university resources (e.g. selling your

notes or promoting a personal agenda) in a manner not authorized by the University is strictly forbidden within the CSU Code of Conduct and also CSU's policy for Acceptable Use for Computing and Networking Resources. All cases of this type of code violation will be reported to the Office of Conflict Resolution and Case Management and dealt with following CSU legal counsel guidance.

Contacting You

Make sure you regularly check your official university email. You can set your official email address by:

1. Log into RamWeb (<https://ramweb.colostate.edu/index.aspx>)
2. Under the Record tab select the "change my email address" link and follow the instructions.

Attendance and Class Etiquette

I expect all students to attend class meetings and to complete all assignments. For official rules on attendance, please visit CSU Academic Integrity Policy and Student Conduct Code (<http://catalog.colostate.edu/general-catalog/academic-standards/academic-policies/website>) Moreover, you will have a chance to score points towards your grade by attending class and participating in in-class activities.

Class etiquette and conduct

- I expect students to be seated and prepared at the start of the class meeting.
- Please switch off your cell phones or turn on "silent" mode during class.
- If you are late to class, please try to find your seat quietly without much disruption.
- If you have to be late regularly, please discuss the reason with me and obtain approval.
- If you missed a class, you will still be responsible for all lecture materials discussed during the period(s) of absence.

Civility and Ground Rules for Discussion

Students will have full freedom to raise relevant questions pertaining to classroom discussions, and to express their opinions to those being discussed. Please visit the CSU Academic Integrity Policy and Student Conduct Code (<http://catalog.colostate.edu/general-catalog/academic-standards/academic-policies/website>) for addition information. I expect you to adhere to Student Conduct Code.

This course will adhere to the Academic Integrity Policy {Section 1.6} of the Colorado State University General Catalog, the Student Conduct Code, and University Principles of Community.

- Please refer to The University Principles of Community found on page 9 of this syllabus.
- Please refer to our cheating and plagiarism policy found on the Canvas homepage and page 11 of this syllabus.
- Student Conduct Code: <http://www.conflictresolution.colostate.edu/conduct-code.aspx#conduct>
- Colorado State University General Catalog: <http://www.catalog.colostate.edu/>

Exams and quizzes

Everyone will receive access to exams and quizzes on the same day. I encourage you to make your best effort to submit all quizzes and exams on time, but I understand that sometimes circumstances arise that are beyond your control. Students that miss an exam due to illness, family emergencies, or other University approved excuses will be able to make up exams by special arrangement. For athletes and others with schedule conflicts;

prior arrangements must be made. Students who use alternative testing at RDS can contact me prior to the exam to make arrangements and sign applicable paperwork. Please contact me ASAP if you miss an exam (preferably the day of the exam).

Academic honesty

Academic dishonesty including any form of cheating and plagiarism will not be tolerated. The processes, procedures, rules and definitions associated with academic misconduct may be found at CSU Academic Integrity/Misconduct Policy (<http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/#academic-integrity>). Any misconduct will result in a reduced grade or failing grade in the course and will be reported to Student Conduct Services at the Student Resolution Center. For serious infractions such as reduced or failing grade a hearing be conducted to determine whether additional university disciplinary action should be taken. Finally, a notation of "AM" (Academic misconduct) will be made on your transcript if the Hearing Officer and I agree that this penalty should be imposed.

Principles of Community

In this course we strive to follow and extend Colorado State's University's Principles of Community, and welcome spirited discussion, lively debate and pursuit of knowledge in a manner that respects each of us as individuals.

The Principles of Community support the Colorado State University mission and vision of access, research, teaching, service and engagement. A collaborative and vibrant community is a foundation for learning, critical inquiry, and discovery. Therefore, each member of the CSU community has a responsibility to uphold these principles when engaging with one another and acting on behalf of the University.

- Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.
- Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.
- Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.
- Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.
- Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

Title IX: Sexual Assault, Sexual Violence, Sexual Harassment

CSU's Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation policy designates faculty and employees of the University as "Responsible Employees." This designation is consistent with federal law and guidance and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic

communications or in class assignments. As “Responsible Employees,” faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking and retaliation is treated with the greatest degree of confidentiality possible while also ensuring student and campus safety.

Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources:

Emergency Response 911

- Deputy Title IX Coordinator/Office of Support and Safety Assessment (970) 491-1350
- Colorado State University Police Department (non-emergency) (970) 491-6425
- Please Visit: <http://oeo.colostate.edu/title-ix-sexual-assault> for more information.

Service Animals in the Classroom

This course will follow all the policies regarding service animal access to the classroom. The full university policy may be found here: <http://policylibrary.colostate.edu/policy.aspx?id=747>.

Policy statement

The University will not discriminate against individuals with disabilities who use service dogs, nor, subject to the terms of this Policy, deny those persons access to programs, services and facilities of the University. In addition, only under certain limited conditions as stated in this policy, the University may permit an individual with a documented disability to have an Emotional Support Animal in a University residential facility. Pets are not permitted in any University building, including residence halls, except for the Veterinary Teaching Hospital and other veterinary facilities in accordance with their rules and policies, or when otherwise specially allowed with advance approval from Environmental Health Services for bona fide academic or University business purposes.

Service Dogs

Subject to some limitations, a service dog may accompany an individual with a disability throughout campus, such as in classrooms, recreational facilities and campus residences. It is strongly encouraged, but not required, that a service dog be identifiable to others through a visible signifier (e.g., vest or harness). Individuals with a disability who require a service dog in the classroom should contact Resources for Disabled Students (RDS) for assistance with accommodations.

Emotional Support Animals

An emotional support animal (ESA) is one that alleviates one or more identified symptoms or effects of a person’s disability. ESAs are not permitted in university buildings, except in the rare situation where use of an ESA in University housing is approved in advance by the University upon the submission of appropriate documentation, as set forth in this policy. ESAs are not permitted in non-residential buildings such as classrooms, laboratories, business offices, recreational facilities, dining halls, or the Lory Student Center; they are limited to the disabled individual’s residence in a University residence hall, apartment, or other housing unit, and permitted only with prior approval.

Plagiarism and Academic Integrity

We take the issue of academic integrity very seriously in this course. You are expected to do your own work and to not access notes or the web during an exam, copy from someone else's exam or to provide exam answers to another student during an exam. We reserve the right to proctor all exams and will take actions to ensure that all students are following this policy.

"Plagiarism includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment. Examples include a submission of purchased research papers as one's own work; paraphrasing and/or quoting material without properly documenting the source" (CSU Policies and Guiding Principles, 2017-2018).

Our motivation for rigorously enforcing a no-plagiarism policy is twofold: First, plagiarism is a form of theft. Taking someone else's words or ideas without attribution is stealing someone else's work. Second, copying someone else's work does not fulfill the purpose of the assignment, which is for you to develop critical thinking and analysis skills. You demonstrate this by presenting your own, new, synthesis and analysis in your writing. Simply copying or paraphrasing from source materials does not demonstrate this, however insightful the source(s) may be. Good writing generates new knowledge. This should be your goal in this class, in other courses at CSU and in your career after you leave here.

In this course all written work will be spot checked for plagiarism issues by both instructors and originality checking software such as VeriCite. If you are caught plagiarizing materials you will receive a 0 for the assignment/exam/project, and depending upon the severity of the offense, an F in the course. All examples of plagiarism or academic dishonesty and will be reported to the Office of Conflict Resolution and Student Conduct Services for additional disciplinary action as outlined in the student handbook under the heading "academic integrity/Misconduct" (<http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/>).

Need Help? Rams Take Care of Rams

Reach out and ask for help if you or someone you know is having a difficult time. Always feel free to come and talk to me; I will always make myself available to help connect you with any resources you need. CSU is a community that cares for you. If you are struggling with drugs or alcohol and/or experiencing depression, anxiety, overwhelming stress or thoughts of hurting yourself or others please know there is help available. Counseling Services has trained professionals who can help. Contact 970-491-6053 or go to <http://health.colostate.edu>. If you are concerned about a friend or peer, tell someone by calling 970-491-1350 (or visit <http://safety.colostate.edu/tell-someone.aspx>) to discuss your concerns with a professional who can discreetly connect the distressed individual with the proper resources. Rams take care of Rams.

Lecture Schedule

Week	Date	Module	Subject	Book Chapters	Quizzes
Week 1	Jan 22	1	1. Introduction/History/Basic Terms	1	
	Jan 24	1	2. Symptoms & Signs	1	
Week 2	Jan 29	1	3. Disease Triangle Interactions	1	
	Jan 31	1	4. Plant Disease Cycle	1	
Week 3	Feb 5	1	5. Disease Control Strategies	11	
	Feb 7	2	6. Viruses as Plant Pathogens I	5	Quiz #1
Week 4	Feb 12	2	7. Viruses as Plant Pathogens II	5	
	Feb 14	2	8. Viruses as Plant Pathogens III	5	
Week 5	Feb 19		REVIEW SESSION		Quiz #2
	Feb 21		EXAM I		
Week 6	Feb 26	3	9. Prokaryotes as Plant Pathogens I	3	
	Feb 28	3	10. Prokaryotes as Plant Pathogens II	3	
Week 7	Mar 5	3	11. Plasmodiophoromycetes	2	
	Mar 7	3	12. Stramenopiles I	2	
Week 8	Mar 12	3	13. Stramenopiles	2	
	Mar 14	4	14. Fungi as Plant Pathogens - Terminology	2	Quiz #3
Week 9	Mar 19		SPRING BREAK		
	Mar 21		SPRING BREAK		
Week 10	Mar 26	4	15. Ascomycetes (Foliage diseases)	2	
	Mar 28	4	16. Ascomycetes (Rots & Wilts)	2	
Week 11	Apr 2	4	17. Chytrids/Zygomycetes	2	
	Apr 4	4	18. Rusts & Smuts	2	
Week 12	Apr 9		REVIEW SESSION		Quiz #4
	Apr 11		EXAM II		
Week 13	Apr 16	5	19. Nematodes	4	
	Apr 18	5	20. Parasitic Plants	6	
Week 14	Apr 23	5	21. Abiotics	7	
	Apr 25	6	22. Types of Plant Diseases	8	Quiz #5
Week 15	Apr 30	6	23. Plant Pathogen Interactions I	9	
	May 2	6	24. Plant Pathogen Interactions II	9	
Week 16	May 7	6	25. Plant Disease Epidemiology	10	
	May 9		REVIEW SESSION		Quiz #6
Week 17	May 16		3rd and Final Exam; 6:20 p.m. – 8:20 p.m. (Thursday)		

Laboratory Schedule

Lab Dates	Subject
Week of	
Jan 21	No Labs 1 st week of classes
Jan 28	1. Introduction/Isolation Techniques
Feb 4	2. Isolation & Microscope Techniques
Feb 11	3. Koch's Postulates/Semester project
Feb 18	4. Viruses
Feb 25	5. Bacterial Pathogens I
Mar 4	6. Bacterial Pathogens II
Mar 11	7. Oomycetes & Slime Molds
Mar 18	SPRING BREAK
Mar 25	8. Ascomycetes
Apr 1	9. Ascomycetes/ Powdery Mildews/ White Mold
Apr 8	10. Ascomycetes/ Root Rots & Wilts
Apr 15	11. Basidiomycetes (Rusts & Smuts)
Apr 22	12. Nematodes
Apr 29	13. Parasitic Flowering Plants & Abiotic Diseases
May 6	14. Diagnosing Plant Problems