**Turfgrass Science & Management  
HORT 378, 4CR**

**Spring 2020**

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**Office Hours:**By appointment.  
Preferred contact method is Canvas Inbox. You should expect up to 48 hours for responses to messages, calls, texts or emails.

**Prerequisite(s)**

The prerequisite(s) for this course are: HORT 377. Students who do not meet the prerequisites may be dis-enrolled during the first few weeks of class. Please see me if you have not satisfied the course prerequisites.

**Delivery method:** Blended (face to face with online enhancement)

**Class Meeting Days and Times**

Lecture: Tues & Thurs 12:00-1:30p; GT 194  
Lab: Tues 2-4p; GT 194

**Online Preparation**

Although most of the course is face-to-face, most of the supporting material will be online. Online courses require a different set of skills, learning techniques and increased self-discipline compared to face-to-face courses. In order to self-assess the appropriateness of distance education for you, I recommend using the <https://online.nmsu.edu/online-readiness/> and <https://online.nmsu.edu/faqs-2/> websites to determine your online readiness.

You should expect to spend 5 hours in face-to-face class each week and spend at least 5 hours a week outside of class preparing & studying for this course using online materials. In addition, you are expected to prepare various assignments throughout the semester.

**Required Technical Skills**

Taking a blended online course requires a number of technical skills as well as other soft skills. However, at a minimum you will need to meet certain technology responsibilities to complete work for this course. If you have questions about technical requirements for the course, please contact me immediately.

To begin in this course, you must:

1. Read this syllabus carefully and contact me if you have any questions.
2. You are responsible for the content and assignments in this syllabus.
3. Be able to obtain access to an internet connection, preferably broadband, and a working computer for the duration of this course.
4. Be Proficient with Microsoft© Office applications.
5. Be able to conduct research searches on the Internet; the [NMSU Library](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Flib.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=AiTsb1L9P290kvVvP%2BSyxgETVKl%2FG%2FB7BY5qOEKLADw%3D&reserved=0) and [Research Help for Students](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fnmsu.libguides.com%2Fc.php%3Fg%3D206103%26p%3D1360063&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=sugJ5JjQiXCG%2B7sKPQMhnFoGDaJ%2F95XCCf5EDZ3I96E%3D&reserved=0)
6. Find resources on the Internet; see [Internet Tutorials](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.internettutorials.net%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=Fhg2yLL89jKOub%2BSsEMJVYX86URpi%2ByORqY0hW8Rs9Q%3D&reserved=0).
7. Be able to send and receive Canvas messages and attachments in an out of class.
8. Know how to change your Canvas Notification settings (Immediately).
9. Know how to read messages in Canvas.
10. Maintain backups of all work you create for this course.
11. You will need to be familiar and comfortable working in the Canvas learning environment. These skills can be obtained through Canvas help. You will need to complete and submit online assignments and online discussions
12. You may need to use Skype, Facetime or Google Hangouts to have virtual meetings with your fellow classmates and me.
13. You may need to view, create, and upload mp4 videos using YouTube videos.
14. You will need to be able to create recordings of presentations to share with your fellow students. Presentations can be created through Microsoft Office Stream feature in conjunction with Microsoft PowerPoint, OR you may record yourself using a camera or smartphone and YouTube.
15. You will need basic photography skills and a digital camera. Most smartphones are okay to use as long as you are able to upload your videos in Canvas.
16. If you are having any difficulty with the technology that cannot be addressed in the Canvas help or Canvas student guides, please contact me directly as soon as possible.

**Course Expectations**

* Students are required to follow the course schedule outlined in the syllabus and meet the deadlines as listed. Any modifications in dates for assignments will be made at least five days in advance.
* Make-up quizzes or any other assignment will not be given except family/health emergencies with appropriate documentation.
* Absences for NMSU sponsored activities will also require a letter from the advisor.
* Students should not use cell phones or computers during class except for class related items. Use of cell phones or computers is a distraction to the instructor and fellow students. Students caught using these items for non-class purposes will be required to give a 5-minute impromptu speech to the entire class on the topic of the instructor’s choosing.
* Students would benefit from exposure to plants and the turfgrass industry.
* Student knowledge should include, but is not limited to,
  1. math skills including unit conversion and area calculations,
  2. professional writing skills and the ability to formulate an argument/rebuttal paper,
  3. computer skills effective enough to navigate an online course in Canvas, submit assignments with attachments, take online quizzes, create word documents and presentations, watch online videos, review documents online, and
  4. functional use of webcams, digital cameras, and other basic video or audio recording devices.

**Netiquette**

Please be considerate with all correspondences within this course including to the instructor and fellow students.

Web Netiquette Expectations

1. Do not personally attack someone in your correspondence.
2. Please avoid misunderstandings by clearly explaining yourself and making your intentions clear. Words without tone and facial expressions can often lead to misunderstandings when communicating through writing. Therefore, you should be diligent in every email, message, discussion and contact with all individuals in this course. I will apply these same standards to my interactions with each of you.
3. Always be polite and respectful online correspondences.
4. Listen gently to others views.
5. Pay attention to your word choice. Be sensitive to others.
6. Use spell check.
7. Avoid using all caps. (All caps is considered to be shouting.)

**Course Organization**

This course is organized with two lecture periods and one laboratory period per week. For each face-to-face lecture period, two topics will be presented. After each topic is presented, students will be asked to complete an activity related to that topic. Some activities may require student efforts outside of the lecture period. Materials and directions for lecture will be introduced at the beginning of each class period.

Each laboratory period will include a brief lecture on the topic of the day and then an extensive hands-on activity for the students to complete individually or in groups. Materials and directions for laboratory will be introduced at the beginning of each class period.

In addition to the lecture and laboratory periods, students are expected to complete additional assignments outside of the classroom. These activities include two article critiques, one turfgrass management plan, one group case study and one individual establishment project (paper and presentation). While some of the directions are provided during lecture/laboratory, most of the details are listed within the Canvas course. Each assignment has their own module with at least one introductory page and one submission page. Students should review and comprehend all directions on these pages.

Students can ask questions during normal class periods, through the Canvas messaging system and through the "Muddiest Points" discussion Canvas page.

**Technology Requirements**

**Computer Hardware & Software**

* Access to a Windows or Macintosh desktop computer or laptop with internet access, sound, and speakers
* Canvas Learning Management System  
  Microsoft Office 2010 or higher
* Adobe Reader (for reading PDF files)
* Headsets with Microphone (Optional for Adobe Connect or Skype)
* Skype (Optional)
* Adobe Connect (Optional)
* Canvas Learning Management System
  + [Instructure Canvas](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Flearn.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=sWYQf5oDFumFVjGbLIqjO0zpsDeBzJCi1CenTKdNDwQ%3D&reserved=0)
  + [Canvas Instructions](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Flearning.nmsu.edu%2Fcanvas-faq-for-students%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=p15mYYxAsVt%2FPFMtH7xwm9255awEgUct5QGrSO8Pgaw%3D&reserved=0)

**Web Browsers**

Use the following browsers in Canvas. Please remember to update the web browser you are using to access Canvas. Microsoft Internet Explorer and Edge are not recommended for use with Canvas at this time.

* Firefox - http://www.mozilla.org/en-US/firefox/new/
* Chrome- https://www.google.com/intl/en/chrome/
* Safari - http://www.apple.com/safari/

**Academic Learner Services Support**

For additional academic support, please see the following:

* Library services: [http://library.nmsu.edu/askus/](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Flibrary.nmsu.edu%2Faskus%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=gQ63z4aqV67K3k7D9w6lKYli8tNGcQJg2Z4tLRMguH4%3D&reserved=0)
* Student Accessibility Services: [https://sas.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsas.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=oHDuYdovt5kmgyLfm%2B5Y1FHnvZ92O71XPHk1rwO6vxQ%3D&reserved=0)
* Student Writing Center: [https://towc.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftowc.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=3wSGtJxvI39iRfJj8ApnK7CUnYYU6X9cr24zllKUSEw%3D&reserved=0)
* Math Center: [https://math.nmsu.edu/math-success-center/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmath.nmsu.edu%2Fmath-success-center%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=5JcP7K%2Fs5gk%2Fninh2w9DnC%2BHfgW1PunFQJiQfQyVS4M%3D&reserved=0)
* Canvas Help: [https://learning.nmsu.edu/canvas-faq-for-students/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Flearning.nmsu.edu%2Fcanvas-faq-for-students%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=p15mYYxAsVt%2FPFMtH7xwm9255awEgUct5QGrSO8Pgaw%3D&reserved=0)

**Student Support Services**

Other Student Support Services

* University Advising & Registration: [https://advising.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fadvising.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=ezhncIWbR%2ByfM9wA7nw35WYmBJmGggUlINrYkjQgHJM%3D&reserved=0)
* ACES College Advising & Registration: [https://aces.nmsu.edu/academics/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Faces.nmsu.edu%2Facademics%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=ZjLbXVps%2FIhnCqxq2J%2BwGpjoksIa05C101CVtM6XWjo%3D&reserved=0)
* Financial Aid: [https://fa.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffa.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=kLlErk2Q6BzFLZKLTKPBd9bJVrmamIVqzetL%2B6sRhjE%3D&reserved=0)
* NMSU Police: [https://www.nmsupolice.com/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.nmsupolice.com%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=tSOtplplq5UU4YRIyKQ6gDd4jwG7YHRX1byl4qvTViI%3D&reserved=0)

**Technical Support**

The ICT Customer Service Center is equipped to deal with all of your information technology (IT) and telecommunications needs at NMSU. The ICT Customer Service Center hours of operation are from 8:00 am until 5:00 pm Monday through Friday Mountain Time. Please feel free to contact them at 646-1840 or via e-mail at [helpdesk@nmsu.edu](mailto:helpdesk@nmsu.edu).  
You can also go to the [Student Technology Help](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fstudenttech.nmsu.edu%2Fstudent-technology%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=8c5yiBypNQVxxlgfOUpHcW%2F4VeP56GU9GoXUT1aZg7s%3D&reserved=0) web page and [Student Resources](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fstudenttech.nmsu.edu%2Flearnnmsuedu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=0jdv3J91cZ1SqN47IhX86dss3Rjp9Witeu3WK9YAMVk%3D&reserved=0) located at the [Canvas](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Flearn.nmsu.edu&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=H6Lr2WwEORRdigKlzXPynm20xg0BNZeY70loqZUWA5s%3D&reserved=0) web page for additional information on Canvas.

**Accessibility of eLearning Tools**

Some general or common VPAT links.  Add or revise as needed.

* [Adobe Products: Section 508 VPATs for (Adobe Connect 9, Adobe Acrobat, and more)](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.adobe.com%2Faccessibility%2Fcompliance.html&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=ERJdPcd0kJDoqYgMduo7uE95QQCU4V21GKn425H7waU%3D&reserved=0)
* [Apple Products: Section 508 VPATs for](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.apple.com%2Faccessibility%2Fresources%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=2%2BsZNr2x%2FSt2%2FCSBsZFpOPUJ%2BY3uJrgio%2BeZV4j2DCk%3D&reserved=0) (Safari Web Browser, Mac OS X, and more)
* [Microsoft Products: Section 508 VPATs for](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.microsoft.com%2Fgovernment%2Fen-us%2Fproducts%2Fsection508%2FPages%2Fdefault.aspx&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=3z9HZRmNBqWI80rxAh1cbeRh9leh5FEBga74ZucFFPo%3D&reserved=0) (Internet Explorer, Office, Skype, and more)
* [Google Products: Section 508 VPATs for](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.google.com%2Faccessibility%2Fpolicy%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=%2BmzigOfNmgqe%2BmnvYHSOGIWD7legXsamrImZ6JimYzs%3D&reserved=0) (Google Earth, Chrome Web Browser, Google Docs, and more)
* [Firefox Web Browser: Section 508 VPAT (version 3.5 and up)](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.mozilla.org%2Fen-US%2Ffirefox%2Fvpat-3.html&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=A4Jk5VHyviQqDilv9d87JxNMxKITiG2blvfFndHIO%2BQ%3D&reserved=0)

**Course Schedule**

## Lecture Schedule

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lecture | Date | Quiz | Topic 1 | Topic 2 | Things Due |
| 1 | 23-Jan |  | Syllabus | Benefits of Turfgrass |  |
| 2 | 28-Jan | Q1 | History of Turfgrass | What is a Turfgrass? Turfgrass Defined Zones of Adaptation |  |
| 3 | 30-Jan | Q2 | C3 vs. C4 | Turfgrass Quality |  |
| 4 | 4-Feb | Q3 | Turfgrass Anatomy | Turfgrass Meristems |  |
| 5 | 6-Feb | Q4 | Turfgrass & the Environment | Turfgrass & the Environment Web Searches | Article Critique #1 |
| 6 | 11-Feb | Q5 | Turfgrass Seed Growth | Turfgrass Leaf Growth |  |
| 7 | 13-Feb | Q6 | Other Turfgrass Growth | Photosynthesis | Establishment Proposal |
| 8 | 18-Feb | Q7 | Light Quantity | Light Quality |  |
| 9 | 20-Feb | Q8 | Photosynthesis | Shade |  |
| 10 | 25-Feb | Q9 | Respiration | Photorespiration |  |
| 11 | 27-Feb |  | EXAM I | EXAM I |  |
| 12 | 3-Mar | Q10 | Poa species | Poa species |  |
| 13 | 5-Mar | Q11 | Lolium species | Lolium species | Article Critique #2 |
| 14 | 10-Mar | Q12 | Agrostis species | Agrostis species |  |
| 15 | 12-Mar | Q13 | Festuca species | Article critique methods |  |
| 16 | 17-Mar | Q14 | Warm-season species 1 | Warm-season species 2 |  |
| 17 | 19-Mar | Q15 | Steps to Turfgrass Establishment 1 | Steps to Turfgrass Establishment 2 |  |
| 18 | 31-Mar | Q16 | Steps to Turfgrass Establishment 3 | Examples of Turfgrass Establishment | Draft Turf Management Plan |
| 19 | 2-Apr | Q17 | Program-based Budgeting | Program-based Budgeting |  |
| 20 | 7-Apr | Q18 | Turfgrass Rootzones | USGA Putting Green Rootzones |  |
| 21 | 9-Apr | Q19 | California Putting Greens | Athletic Field Rootzones | Peer Reviews of Turf Management Plans |
| 22 | 14-Apr |  | EXAM II | EXAM II |  |
| 23 | 16-Apr | Q20 | Case Study Introduction | Integrated Turfgrass Management |  |
| 24 | 21-Apr | Q21 | Turfgrass Insects | Turfgrass Insects |  |
| 25 | 23-Apr | Q22 | Turfgrass Diseases | Turfgrass Nematodes |  |
| 26 | 28-Apr | Q23 | Turfgrass Weeds | Turfgrass Weed Control |  |
| 27 | 30-Apr | Q24 | ITM Decision Making | Turfgrass Water Use |  |
| 28 | 5-May | Q25 | Turfgrass Irrigation Systems | Saline Water | Establishment Presentations |
| 29 | 7-May | Q26 | Sodic Water & Bicarbonate Water | High pH Water | Turfgrass Management Plan |
| F | 12-May |  | May 12 LAB FINAL | May 14 LECTURE FINAL | Case Study |

## Laboratory Schedule

|  |  |  |
| --- | --- | --- |
| Lab | Date | Lab Activity |
| 1 | 28-Jan | Intro; Turfgrass Establishment |
| 2 | 4-Feb | Turfgrass Math |
| 3 | 11-Feb | Seed ID; Seed Labeling & Calculations |
| 4 | 18-Feb | Establishment Project |
| 5 | 25-Feb | Turfgrass Identification - Cool Season Turfgrasses |
| 6 | 3-Mar | Turfgrass Identification - Warm Season Turfgrasses |
| 7 | 10-Mar | Irrigation Calculations |
| 8 | 17-Mar | LAB MIDTERM |
| 9 | 31-Mar | Irrigation Calibration |
| 10 | 7-Apr | Spreader & Sprayer Calibrations |
| 11 | 14-Apr | Golf Course Visit - Mowing |
| 12 | 21-Apr | Pesticides & Pesticide Labeling |
| 13 | 28-Apr | Campus Weed Tour |
| 14 | 5-May | Establishment Project Presentations |
| Final | 12-May | LAB FINAL |

**Syllabus Modifications Statement**

All schedules are subject to change depending on the progress of the course and other outside factors. If deadline changes of any lecture, assignment, quiz, or exam are needed, they will be made during a classroom period or as a Canvas announcement at least 48 hours prior to the change.

**Required Texts**

Fundamentals of Turfgrass Management. Christians, N.E., A.J. Patton & Q.D. Law. 2017. 5th edition. ISBN: 9781119204633

**Required Materials**

Students may be required to purchase modest supplies to complete various assignments. If these become burdensome to the student, contact the instructor immediately to hopefully identify a sponsor or departmental funds to support.

**Optional/Recommended Texts and Materials**

Alternate book: Turfgrass Management. 2011. 9th edition. ISBN: 0137074352

Other reference books used in the course. (Do not buy).

* Turfgrass: Biology, Use and Management. 2013. Eds. Stier, Horgan, Bonos ISBN: 978-0-89118-613-7
* Turfgrass: Science and Culture. 1973. J.B. Beard. ISBN: 013933002x

**Course Overview**

Introduction to the scientific fundamentals for turfgrass management cultural practices, pest management, rootzone construction and ecology.

**Course Learning Objectives**

By the end of the semester, students shall be able to:

1. Describe the benefits, history, basic physiology and growth of turfgrasses
2. Identify the species of an unknown turfgrass plant
3. Identify the climate, location and use for each turfgrass species
4. Describe and implement the principles of turfgrass establishment and management
5. Identify the species and control options for the basic turfgrass pests and describe the management principles and practices to minimize turfgrass damages from pests
6. Describe the environmental influences on turfgrass growth and management

**Assignments & Exams**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Assignment | Number of Assignments | Group Point Value | Percent of Final Grade | Notes |
| Quizzes | 25+ | 100 | 10% | Daily, Drop lowest Quizzes |
| Final Exam | 1 | 100 | 10% | May 14; Comprehensive |
| Article Critique #1 | 1 | 50 | 5% | Feb 6 |
| Article Critique #2 | 1 | 50 | 5% | Mar 5 |
| Case Study | 1 | 100 | 10% | May 14 |
| Turf Management Plan | 1 | 150 | 15% | Draft Mar 31; Peer Reviews Apr 9; Final May 7 |
| Lab Sheets | 14 | 100 | 10% | Weekly |
| Lab Midterm | 1 | 50 | 5% | Mar 17 |
| Lab Final | 1 | 100 | 10% | May 12 |
| Establishment Project | 1 | 100 | 10% | Paper & Presentations May 5 |
| Activities | 25+ | 100 | 10% | Daily; Drop Lowest Activities |
| Total Points |  | 1000 | 100% |  |

Student grades will be determined by their total points earned in the lecture and laboratory by prorating their points earned within each assignment group to the point totals above. For example each quiz is worth 50 points, but these points are not worth course points. At the end of the semester, the top 25 quiz scores will be averaged. This average will be prorated to the 100 course points (= % average of top 25 quizzes).

**Final Exam**

Lab Final Exam May 12 1:30pm-4:00pm

Lecture Final Exam May 14 10:30am-12:30pm

**Attendance**

Students are expected to attend every lecture and lab period throughout the semester. All excuses must be documented. No make-up work will be allowed excepted for pre-approved, documented campus activities or personal/family emergencies with appropriate documentation. Borderline grades may be determined by class participation. Lecture and Lab activities cannot be made up. For each three (unexcused) Lecture and Lab absences, the student's final grade will be dropped one letter grade. A student who arrives more than ten minutes late to any Lecture or Lab period will be considered absent for the day, but they may be able to complete the day's activities and earn some/all of points possible.

**Religious Observances and Authorized Absences**

NMSU values diversity and the university supports cultural and religious inclusiveness. If your participation in cultural or religious observances (e.g. religious holidays, spiritual observances) conflicts with a particular class session, please notify me in writing and ahead of time to be excused from class for such observances.

**Late Assignment and Make-up Work/Exams**

All assignments must be completed in the time frame presented. Late assignments will only be accepted with prior approval. All late assignments accepted will lose 50% of the grade. No late assignments will be accepted more than two business days late from the deadline.

**Multiple Submissions**

The first and only submission will be accepted for grading unless otherwise stated in class.

**Grades**

Grades will be earned based on the following assignments. See details above.

|  |  |
| --- | --- |
| Assignment | Number of Assignments |
| Quizzes | 25+ |
| Final Exam | 1 |
| Article Critique #1 | 1 |
| Article Critique #2 | 1 |
| Case Study | 1 |
| Turf Management Plan | 1 |
| Lab Sheets | 14 |
| Lab Midterm | 1 |
| Lab Final | 1 |
| Establishment Project | 1 |
| Activities | 25+ |

Grades will be determined based on the total of 1000 points. Points for each assignment group may not equal a course point. Course point totals >900 = A; 800-899 = B; 700-799 = C; 600-699 = D and <600 = F.

**Assignment Descriptions**

**QUIZZES**

**The Purpose of Quizzes is to test your knowledge about previous lectures and to guide my teaching methods and material for student comprehension.**

For every lecture period, a brief quiz will be provided. Quizzes may be offered at any point during the lecture period or may be provided in the online Canvas course. Quizzes will include an assortment of question types including multiple choice, true/false, matching, drawings, label diagrams, short answers and essays. Each quiz will have a different variety of question types.

Quiz points are not equal to course points. Each quiz will be worth 50 points and pro-rated so that 25 quizzes will total 100. Your final quiz score will be determined  by the average % score of your best 25 quizzes. For example, if you had a quiz average of 47 points, your quiz average is 94% and you will have a total of 94 points added to your final course point total.

Quizzes cannot be made up under any circumstances. If you must miss the class due to family emergency or campus activity, those missed quizzes will be applied to the group of dropped scores. If a student has more excused emergencies or excused campus activities than dropped scores, their average of the remaining quiz scores will determine their quiz point total.

**FINAL EXAM**

**The Purpose of the Final Exam is to assess your understanding and knowledge retention of lecture material.**

A comprehensive Final Exam will be offered May 14 10:30-12:30 in normal classroom. Final Exam covers all material presented in the lecture or lab. The Final Exam will include some questions from quizzes, but may include different question types or reworded quiz questions. New questions should also be expected.

**LABORATORY MIDTERM AND FINAL EXAMS**

**The Purpose of the Laboratory Midterm and Laboratory Final Exams is to assess your understanding and knowledge retention of laboratory material.**

Unless otherwise noted in class, each Laboratory Exam will include material covered in previous Laboratory periods. Laboratory Final Exam will be comprehensive. All exams will include a variety of testing methods and may include multiple choice, matching, short answer, short essay, mathematical problems solving, plant and pest identification, etc. All exams must be completed during laboratory on the designated exam day. Makeup exams will not be given due to the extensive preparation required for laboratory exams. Lab Midterm is Mar 17 during normal Laboratory time; Lab Final is May 12 1:30-4:00p.

**ARTICLE CRITIQUES**

**The Purpose of the Article Critiques is to teach students how to find, read and analyze research-based literature on cutting-edge turfgrass experiments.**

Two Article Critiques will be offered during the first half of the semester. The Article Critique #1 is due Feb 6; the Article Critique #2 is due Mar 5. Specific and detailed instructions will be provided in the Canvas course. Students should read all of the instructions including the expectations and framework necessary to be successful in the assignment. Students should also review the grading rubric for the assignment.

**CASE STUDY**

**The Purpose of the Case Study is to provide a real-world turfgrass problem as an avenue to mimic a consulting-type career opportunity, and to initiate development of a business mindset in the students' growing career.**

A group Case Study Assignment will be offered for the course. The Case Study is due May 14 @ 1:00pm. Specific and detailed instructions will be provided in the Canvas course. Students should read all of the instructions including the expectations and framework necessary to be successful in the assignment. Students should also review the grading rubric for the assignment.

**TURF MANAGEMENT PLAN**

**The Purpose of the Turf Management Plan is to provide the students a real-world assignment expectation that requires students to identify and organize management goals, expectations, thresholds, budgets and other requirements for a future, desired turfgrass management location. These Turf Management Plans can be modified for job interviews to display a graduates' knowledge and planning abilities.**

A Turf Management Plan assignment will be offered for the course. The first draft is due by Mar 31 and will be reviewed by your fellow students. Peer reviews will be due Apr 9 and returned to the student. Final Turf Management Plans are due May 7.

**LAB SHEETS**

**The Purpose of Lab Sheets are to guide your learning and then assess your learned knowledge on the laboratory topic of the week.**

Lab sheets will be distributed each week before the laboratory period. These sheets include background knowledge, appropriate illustrations, and directions on the laboratory activity of the week. At the completion of the laboratory period, students should turn-in your lab sheets for grading. Some weeks will require additional student effort after the laboratory period. In these situations, the lab sheet will need to be turned in at the beginning of the next laboratory period unless otherwise stated in class.

**ESTABLISHMENT PROJECT**

**The Purpose of the Establishment Project is to immerse students 1) to a simple experimental project that will introduce the scientific method and encourage scientific inquiry, 2) in the seedling emergence and development process, 3) in the anatomy of turfgrass seeds, seedlings and mature plants, and 4) in the required steps to successful turfgrass establishment.**

For the turfgrass establishment projects students will be required to design, implement and present results of their own simple greenhouse establishment research project.

**ACTIVITIES**

**The Purpose of the In-Class, Lecture Activities are to immerse the students in a topic and to provide a student-centered, peer-learning activity that reinforces the lecture topics of the day.**

In-class and out-of-class Lecture and some Laboratory Activities will be offered throughout the semester. Activities will be graded on a complete or not-complete grading system. Some activities must be completed within the class period. Others must be completed after class, but before the next class period. Activity grades will be determined on the best 25 activity scores for each student. We will have more activities than 25 and therefore we will drop your lowest scores.

**S/U Grading Option:**

Students enrolling under the S/U grading option must earn **750 points out of 1000** to receive an "S".  Students must elect the grading option prior to the last day to add a class.  Students should check the course catalog for eligibility and availability of the S/U Option generally.

**Incomplete Grades**

Under university policy, incompletes may be given only if a student has a passing grade at mid-semester (the last day to withdraw from a class) and is precluded from successful completion of the second half of the course by a documented illness, documented death, family crisis or other similar circumstances beyond the student's control.

An incomplete should not be given to avoid assigning a grade for marginal or failing work. Instructors assigning the "I" grade can choose to make the "I" grade permanent, and require students to register for the course in a subsequent semester to earn credit (Option A), or may allow students to complete remaining work in the course by an identified deadline (within one year) and then submit a change of grade form to substitute the earned grade for the "I" grade (Option B).

Requirements for removal of the "I" grade under Option B must be clearly stated on the "I" grade form. Incompletes do not automatically convert to F's if the course is not completed. Under Option B, the faculty member can state on the form that an incomplete will become an F, but then it is incumbent upon the instructor to process a change of grade form to accomplish that result.

**Expectations**

Although most of the course is face-to-face, most of the supporting material will be online. Online courses require a different set of skills, learning techniques and increased self-discipline compared to face-to-face courses. In order to self-assess the appropriateness of distance education for you, I recommend using the https://online.nmsu.edu/online-readiness/ and https://online.nmsu.edu/faqs-2/ websites to determine your online readiness.  
  
You should expect to spend 5 hours in face-to-face class each week and spend at least 5 hours a week outside of class preparing & studying for this course using online materials. In addition, you are expected to prepare various assignments throughout the semester.

**University Grading System**

Grade reports are not automatically mailed to students. Students can access grades and credits by the web using my.nmsu.edu. It is the responsibility of the student to provide updated grade addresses to the Office of the Registrar. At the request of the student, the instructor will provide information on progress in the course prior to the last day to drop a course. The NMSU system of grading is expressed in letters, which carry grade points used in calculating the cumulative grade–point average:

| **Letter grade per unit of credit** | **Grade points** |
| --- | --- |
| A+ | 4.0 |
| A | 4.0 |
| A– | 3.7 |
| B+ | 3.3 |
| B | 3.0 |
| B– | 2.7 |
| C+ | 2.3 |
| C | 2.0 |
| C– | 2.0 |
| D+, D, D– | 1.0 |
| F | 0 |
| W — Withdrawal | 0 |
| N — Grade not submitted | 0 |
| CR — Credit authorized, but not letter grade | 0 |
| IP — In progress | 0 |
| RR — Progress in undergraduate course | 0 |
| PR — Progress on graduate thesis | 0 |
| S\* — Satisfactory work | 0 |
| U — Unsatisfactory work | 0 |
| I — Incomplete | 0 |
| AU — Audit | 0 |

\*An S grade is a grade satisfactory to the professor and is normally equivalent to the letter grade of C or higher. In computing the overall grade–point average, the total credits in which grades of A, B, C, D, or F have been assigned is divided into the total number of grade points earned.

**Important Dates for Spring 2019**

Students may add courses through **January 23, 2020** without instructor permission and through **January 31, 2020** with instructor permission.  Late registration fees will apply for courses added after **January 22, 2020**.  The deadline for withdrawing from a course is **March 19, 2020**.  Students may withdraw from the university (withdraw from all classes) through **May 8, 2020**.

**Writing Center Information:**

The Writing Center offers free services to all NMSU students through one-on-one consultations at any stage in the writing process, from understanding assignment directions to revising final drafts. Consultants advise students on aspects of proofreading and editing, but do not provide editing services. Information about the Writing Center is available at [https://towc.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=https%3A%2F%2Ftowc.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=3wSGtJxvI39iRfJj8ApnK7CUnYYU6X9cr24zllKUSEw%3D&reserved=0)

**Email Communications**

Your NMSU email account is the official means of communicating with the university. Information critical to your success at NMSU is delivered to you via this account, and you are expected to follow rules and policies provided to you via this communication method. Any email from you to the instructor should be sent either through the CANVAS course management system or through your official NMSU email account. Please be advised that due to privacy and security concerns, we are unable to respond to emails from or about students that do not originate from an official NMSU email address.

**Academic Misconduct**

**Cheating will not be tolerated on any class activity.** Any student caught cheating will receive zero points for the activity. In addition, the student may be asked to leave the class, or the student may be subjected to further disciplinary action at the university level (e.g., hearing with possible dismissal from the university).

**Plagiarism is a crime in addition to being academically dishonest and will not be tolerated.** Plagiarism can be committed unintentionally by quoting or copying others’ works without providing the proper credit (literature citations). Ask instructor for help if you are unsure about plagiarism. Plagiarism is easy to spot; please just don’t do it. When in doubt, use a citation within the text to indicate you are using someone else’s work, ideas or thoughts.

The Student Code of Conduct defines academic misconduct, non-academic misconduct and the consequences or penalties for each. The Student Code of Conduct is available in the NMSU Student Handbook online:

[http://studenthandbook.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fstudenthandbook.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=E%2FNNgcVSuTcSQ8ObKeYMpnDeP64V1L0xC4H0VjO9yto%3D&reserved=0)

Academic misconduct is explained here:  
[http://studenthandbook.nmsu.edu/student-code-of-conduct/academic- misconduct/](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fstudenthandbook.nmsu.edu%2Fstudent-code-of-conduct%2Facademic-%0D%0A%0D%0Amisconduct%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=emIFW%2FySY0cJ39Uz24pVkXojXD3d03lYKhT8XrJgCN8%3D&reserved=0)

**Discrimination and Disability Accommodation**

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact:

**Main Campus**  
Student Accessibility Services (SAS)  
Corbett Center Student Union Room 208  
Trudy Luken, Director  
575-646-6840  
[sas@nmsu.edu](mailto:sas@nmsu.edu)  
[http://sas.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fsas.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=9O9RRu3m4S7mE%2BOltnOyiNULhoxVyhG9YozEPjY9F5Y%3D&reserved=0)

New Mexico State University, in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex (including pregnancy), sexual orientation, spousal affiliation, or protected veteran status in its programs and activities, including employment, admissions, and educational programs and activities. Inquiries may be directed to the Laura Castille, Executive Director, Title IX and Section 504 Coordinator, Office of Institutional Equity, P.O. Box 30001, E. 1130 University Avenue, Las Cruces, NM 88003; 575.646.3635; 575-646-7802 (TTY); equity@nmsu.edu.

Title IX prohibits sex harassment, sexual assault, intimate partner violence, stalking and retaliation. For more information on discrimination or Title IX, or to file a complaint contact:

Laura Castille, Executive Director and Title IX Coordinator  
Office of Institutional Equity (OIE) - O'Loughlin House, 1130 University Avenue  
Phone: (575) 646-3635 E-mail: [equity@nmsu.edu](mailto:equity@nmsu.edu)  
Website: [http://equity.nmsu.edu/](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fequity.nmsu.edu%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=30aIDeqheIInoWQhAo%2F%2FpNAnNAoW0vFIzQnazHfIbY4%3D&reserved=0)

**Other NMSU Resources:**

|  |  |  |
| --- | --- | --- |
| NMSU Police Department: | (575) 646-3311 | [www.nmsupolice.com](https://nam01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.nmsupolice.com%2F&data=01%7C01%7Cryangoss%40nmsu.edu%7C59aef0229df3487cd2ee08d7961bceca%7Ca3ec87a89fb84158ba8ff11bace1ebaa%7C1&sdata=OCrWO7Bg7oJoVBiVK%2FdJcX5wDrdlGOXtIAFiAuFrnsc%3D&reserved=0) |
| NMSU Police Victim Services: | (575) 646-3424 |  |
| NMSU Counseling Center: | (575) 646-2731 |  |
| NMSU Dean of Students: | (575) 646-1722 |  |
| For Any On-campus Emergencies: | 911 |  |