Course Syllabus
TUR140
Turf Grass Equipment Management
3 Semester Hours

Spring 2016

Faculty: Eric Linde
Office: Ocean Resorts Golf Club
Telephone: Cell; 302-462-5946
E-mail: elindeorgc@outlook.com
Office Hours: By appointment
Class Time:  Lecture: Tuesday 6:00 to 8:00
           Lab: Tuesday 8:15 to 10:15
Class Location: Wor-Wic Classroom at Ocean Resorts Golf Club

Course Description:
This course covers all aspects of equipment management as it relates to turf grass and landscape care. Students will learn about equipment costs, specifications, acquisition, inventory expenses, uses, operation and maintenance procedures. Two hours of lecture and two hours of laboratory per week. Usually offered in the spring.

Textbook:
Lecture and Lab: Beard, James, B. Turf Management for Golf Courses. Wiley Publishers

COURSE OBJECTIVES, ASSESSMENT GOALS AND ASSESSMENT STRATEGIES

1. List and explain general safety procedures for the turf and landscape industry
   - Safely operate stationary equipment such as saws, grinders and drill press
   - Safely operate turf grass equipment such as lawn mowers (ride and walk behind), tillers, spreaders, sprayers, tractors and trucks
   - Explain OSHA and EPA as they relate to the landscape and turf industry including the use of pesticides, storage and Material Data Sheets
   - Demonstrate the effective safe use of hand tools and hand held power tools
   - Explain the calibration of a sprayer nozzle based on refill method and nozzle method

Assessment Strategy: Exam questions, quizzes and homework. *

2. Maintain and service landscape and golf course equipment
   - Demonstrate professional mower servicing and maintenance techniques
   - Demonstrate professional small engine servicing and maintenance techniques
   - Demonstrate professional servicing and maintenance techniques for trimmers, edgers, tractors, cultivators and light duty golf vehicles

Assessment Strategy: Exam questions, quizzes and homework. *
3. List and specify each item of tools and equipment, including the components of each tool or equipment item, for a landscape/turf management equipment service area, and the components of each
   - List and specify items of consideration that can be recommended to management for purchases of turf equipment for operating a facility in the landscape industry
   - List and specify items of consideration for purchases of measuring equipment for the turf and landscape industry including measurement of electrical, hydraulic and plumbing items
   - List and specify items of consideration when purchasing equipment including specifications, lease/purchase options, rental options, subcontracting and used equipment alternatives.

Assessment Strategy: Exam questions, quizzes and homework. *

4. Maintain and service small engines in the turf grass and landscape industry
   - Maintain and service 2 cycle engines
   - Maintain and service 4 cycle engines
   - Explain the design and use of a turf and landscape operations center including a work apron and a washing area
   - Demonstrate skills with shop tools and techniques to include hand tool use, welding/torch use, grinding, drilling, troubleshooting and safety.

Assessment Strategy: Exam questions, quizzes and homework. *

5. Describe the use of and the need for “work area” in a turf and landscape operations center
   - Describe the need for and use of a grinding room
   - Describe the need for and use of a tool room
   - Describe the need for and use of an equipment parts room
   - Describe the need for and use of an irrigation parts room

Assessment Strategy: Exam questions, quizzes and homework.*

*Note: Assessment Strategy There is a required Graded internet/media/database assignment
*Satisfies GEO Objective 6 and 8.

**Tentative Schedule:**

19-Jan  State Course requirements, books, grading, weather, office hours and projects.
        Review syllabus.
        Introductions, instructor and students.
        Course overview. Go over outline.
        Reading assignment. - Chapter 8 pages 339-360
        Class preparation and participation 10%

26-Jan  Class assignment
        List all equipment and inventory needed to run a small lawn maintenance business with costs.

2-Feb   Mission Statement, business goals, objectives.
Labor and material expenses.
Equipment upkeep, supplies, inventory in field, shop.
Overhead, license, insurance, office.

9-Feb  Meet at the classroom
         Maintenance schedule project due March 15th.
         Equipment expenses, insurance, depreciation, taxes, fuel and upkeep.
         Buying, leasing, financing, new, used, cash flow.
         lease vs. loan vs. terms vs. cash and review to date.

16-Feb  Meet at Ocean Resorts shop
         Tour of facility
         Safety
         Site considerations
         Building components
         Equipment Review
         Shop master plan
         Exam review

23-Feb  Meet at Ocean Resorts shop
         Engines - gasoline, diesel, 2 cycle, electric
         Small engine analysis.
         Best shop practices
         Maintenance schedule project review due 3/15.

1-Mar    Meet at the classroom
         Maintenance schedule project due March 31st.
         Equipment expenses, insurance, depreciation, taxes, fuel and upkeep.
         Buying, leasing, financing, new, used, cash flow.
         lease vs. loan vs. terms vs. cash and review to date.

         Exam  15%

8-Mar    No Classes

15-Mar  Meet at Ocean Resorts shop
         Vehicle service
         Maintenance schedule due 10%
22-Mar  Meet at ORGC Classroom
   Your business model, goals, mission statement
   Equipment in your business
   True cost to own/profit
   Bidding work/targeting jobs
   Five year projections - expanding
   Exam #2  15%

29-Mar  Meet at ORGC Classroom
   Marketing Workshop
   Who are you?  Business cards, branding,
   Credentials, references, flyers, mission statement.
   Company sales presentation and critique.

5-Apr    Meet at Ocean Resorts shop
   Hands on shop skills
   Grinding reels
   Chainsaw service
   Rotary sharpening
   Fabrication
   Welding/oxyacetylene
   Shop Skills  15%

12-Apr   Meet at Ocean Resorts shop
   Large equipment service.
   Hydraulic systems.
   Form follows function - systems integration
   Best shop practices.
   Lab skills  15%

19-Apr   Meet at ORGC shop
   Demo Days
   Reel mower
   Rotary mowers.
   Tractor/loader
   Final Exam Review

26-Apr   Final Exam  20%
**Course Requirements:**

**Grading/Exams:**

Grading will be determined on the basis of tests, drawing assignments, homework assignments, quizzes, Electronic Library project, laboratory assignments, CAD project and final exam. This course will include a comprehensive final exam. Final grade will be weighted as follows:

- Class preparation and participation: 10%
- Drawings charts and schedules: 10%
- Exams (2): 30%
- Lab - Shop skills: 15%
- Electronic library/database assignment: 15%
- Final Exam: 20%

Note: Each class will include the lecture and some exercise to practice and for the instructor to coach you. There are ongoing assignments due to make use of the scheduled time each week. Each student is expected to stay and work for the entire time for which the class is scheduled.

**Conversion of numeric average to Final (Letter) Grade:**

<table>
<thead>
<tr>
<th>Numerical Average</th>
<th>Letter Grade</th>
</tr>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89</td>
<td>B</td>
</tr>
<tr>
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<td>C</td>
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<td>60 - 69</td>
<td>D</td>
</tr>
<tr>
<td>0 - 59</td>
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</table>

**Attendance Policy**

Absence / Lateness - NOT ALLOWED

ARRANGE TO GET NOTES FROM ANOTHER STUDENT.

School is like a job. It is a commitment and absence or lateness will not be tolerated as it would not be tolerated in the workplace. If you miss or are late for classes you miss important material and you will fall behind. It is YOUR RESPONSIBILITY to make up any missed class work.

**ELECTRONIC WRITING ASSIGNMENT/Projects**

An electronic paper is due. It is due March 31st. It cannot exceed 3 pages. You may not use Wikipedia as a source. No charts are allowed. It should deal with your career goal. Research how much income can be made in landscaping, landscape construction, turf grass management, equipment repair, or turf equipment management. What are salary ranges in various cities for this job field? What are career stages, i.e. lower and higher job titles? What is the chance for advancement in the field? What are some related job titles? What education is required? Are there other entrance requirements? Use several sources, at least 3. Cite your source (Cite the sources in a way that allows the instructor to check your facts). Give the citations exactly so the teacher can type in the URL to check the facts and determine that you did not copy exactly from another person’s written words verbatim.

You may turn your paper in early if you wish.

**Due:** Turn in Drawing and schedule by April 15th. Papers turned in late will **not** be accepted.

This paper must be maximum 3 pages plus a cover page and a bibliography. It should include a main point statement, the report and a summary. You must include a minimum of 3 references; at least two of those references must be from the Internet. You may not include your text as a reference. Paper must be typed in 12 point type and double spaced.
Best practice to get the highest grade on your paper
Did you state a goal and tie your paper to this course in some way. 10%.

Did you specify industry trends and innovations, is there a way to draw a mental pattern of it as a guide? If your goal is money have you stated how much? If your goal is success have you specified it definitely 20%

Twelve point type double spaced, spelling, cover page and length. 10%
Class presentation, convey your thoughts to the class 15%
Body-length and content 25%

Demonstrate your ability to think beyond the limits of this course by writing information that ties this course to your whole degree program. 20%

Late Assignment Policy
All homework, laboratories and reading assignments must be submitted on time. NO CREDIT FOR LATE WORK. If you do not read your text at home, labs and practice, you will not be able to keep up with the class. I cannot slow down to pick up students who are not committed to making every class and doing all of your homework, labs and reading as assigned. I cannot check that you have done your reading but it will show up in your work and your ability to keep up with the class.

Quizzes and Tests
If you miss a test, it will be the teacher’s decision to determine if it should be made up. If you miss a quiz/warm-up you will receive ZERO (0) points for that quiz, no makeup quizzes will be given. All Quizzes and Tests will be based on the Text, Lecture Material, Lab exercises and handouts.

Blackboard Disclaimer:
Blackboard is being used as the primary tool for this course. To access course content in Blackboard you need to have access to a computer with an Internet connection. Computers are available on campus in FOH 217, HH 109, GH 304 and FOH 305. Please follow these directions to access course syllabi and any other materials posted.

Login Information:
1. From the Wor-Wic home page, point to “Quick Links” (top–right) and then click “Blackboard Login.”
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Academic Honesty Policy:
Students are required to maintain a high level of academic performance. All work submitted to the instructor will be regarded as the work of the student taking the course. Cheating and plagiarism are defined in Wor-Wic’s Student Conduct Policy found in the College Catalog. Infractions of this policy will result in disciplinary action including failure of the assignment, test, or the course.

Emergency Information Statement
In the event of severe inclement weather or other emergency, information about the closing of the college will be communicated via e2Campus and the College's website. Faculty will communicate with students about their
courses and course requirements, such as assignments, quiz and exam dates, and class and grading policies, via Blackboard. Students will be responsible for completing all assignments in accordance with class policies.

**Services for Students with Disabilities**

Wor-Wic provides reasonable accommodations for students with disabilities, in compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. If you are in need of accommodations, please contact the counseling office at (410) 334-2899. For more information, see Wor-Wic's Services for Students with Disabilities web page.
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