

WACO, TEXAS

COURSE SYLLABUS AND INSTRUCTOR PLAN

Environmental Science II – Lecture (Online) ENVR 1302.0280

(This is an 8 week course)

Bradley T. Turner, M.S., M.E.S., M.A.

AN EQUAL OPPORTUNITY INSTITUTION

Fall 2023

ENVR 1302 Course Description:

General interest course requiring a minimum of previous science background and relating scientific knowledge to problems involving energy and the environment. May or may not include a laboratory. Semester Hours 3 (3 lecture)

Instructor Contact Information:

Instructor Name: Bradley T. Turner, M.S., M.E.S., M.A. Office Hours: Tuesdays, 1-3p, or by appointment Office Location: Science Building, Room 122 Zoom ID: 254 299 8408

Email: <u>brturner@mclennan.edu</u>

Phone: 254-307-3372 (cell) – I receive and return phone calls during most weekdays, but you can leave me a voicemail or text 24/7. Who knows... I might even respond to you during one of those weird times.

254-299-8408 (office) - My official MCC number that forwards to the number above

Favorite Treat: Soft, homemade gingersnap/gingerbread cookies

***Please refrain from using the Brightspace Instant Messaging system,

because it is unreliable and sometimes difficult for me access when I'm not on my laptop**

Prerequisites and/or Corequisites:

None

Required Text & Materials:

McCown, Michaela, Elaine K. Fagner, and Bradley T. Turner. *Engaging in Environmental Science, Part II*. Bluedoor, LLC/TopHat. 2022

Obligatory Bookstore/Product Placement Shout-out: <u>MCC Bookstore Website</u>

Course Notes and Instructor Recommendations:

Every student in this course needs to regularly check Brightspace for new assignments, announcements, and/or messages. Every student needs to be able to access PDF files and videos without a problem. This course requires that students complete blanks inside of a textbook, while watching lecture videos. Because of this, students must also be able to view videos and have a reliable Internet connection to succeed. All quiz and exam assessments may require the use of Respondus Lockdown Browser, ProctorU, Proctorio, or even Zoom. Links to some (if not all) of these programs will be provided to the students under the Section One folder or in the Syllabus/Schedule folder. The videos are uploaded and streamed from YouTube.

Methods of Teaching and Learning:

Lectures, quizzes, exams, essays, and/or other alternative means.

Course Objectives and/or Competencies:

1. Recognize, describe, and quantitatively evaluate earth systems, including the land, water, sea, and atmosphere, and how these function as interconnected ecological systems.

- 2. Assess environmental challenges facing humans caused by their interaction with the physical and biological environment (e.g., population growth, energy resources, food production, pollution, water and resource use).
- 3. Acquire a scientific vocabulary and critical thinking skills related to environmental science.
- 4. Assess the effectiveness and feasibility of environmental policy and its impact.

Other specific Student Learning Outcomes and Core Objectives include:

- A. Critical thinking assignments that focus on scientific knowledge related to problems involving energy and the environment;
- B. Assessing communication skills through quizzes and assignments that are largely written, while lectures gravitate toward visual components, and class discussions guarantee students' oral interactions when introducing the physical sciences at a collegiate level;
- C. Empirical/quantitative assessments through lectures that allow students to see examples of specific case studies, research, and current events that pertain to data collection, analysis, and the scientific method as they pertain to energy problems and solutions; among other environmental topics like sustainability and resource management.

Course Outline or Schedule:

The official class schedule is posted and updated on Brightspace, as adjustments become needed. For each section there will be assignments due at precisely 11:55pm on specified evenings. At times, students may be allowed to work ahead in the course (if they choose), but the instructor is not required to make future assignments available before an assignment's scheduled time. If additional sections are opened, the additional sections' due dates will be posted in the same location as the additional sections' tabs. A student may ALWAYS complete available assignments early (when they are available), but will not be able to receive credit on any assignments submitted past an assignment's specified deadline.

Chapter/		
Lecture	Topics Covered	Objectives
21	Urban Sustainability	1, 2, 3, 4
22	Geologic Materials and Minerals	2, 3, 4
23	Fossil Fuels	1, 2, 3, 4
24	Hydraulic Fracturing and Nuclear Energy	1, 2, 3, 4
25	Renewable Energy	1, 2, 3, 4
26	Solid Waste	1, 2, 3, 4
27	Hazardous Waste and E-Waste	1, 2, 3, 4
28	Recycling Markets and Plastics	1, 2, 3, 4
29	Recycling Processes: Aluminum, Glass, and Paper	1, 2, 3, 4
30	Water: Ocean and Freshwater	1, 2, 3, 4
31	The Price of Water	1, 2, 3, 4
32	Wastewater, Stormwater, and Public Water Supplies	1, 2, 3, 4
33	Atmosphere and Climate Impacts	2, 3, 4
34	Air Quality	1, 2, 3, 4
35	Ecosystem Management	1, 2, 3, 4
36	Soils and Ecology	1, 2, 3, 4
38	Green Marketing and Environmental Economics	1, 2, 3, 4
39	Case Studies in Environmental Disasters	1, 2, 3, 4
40	Enviornmental Action	1, 2, 3, 4

In percentage terms, quizzes represent 50% the final course average, discussion board posts represent 10%, the Midterm Exam represents 15%, and the Final Exam represents the remaining 25%. The grade scale used in this course is: A = 90–100; B = 80-89.9; C = 70-79.9; D = 60-69.9; and F = 59.9 or below. Grades are kept on Brightspace under Grades tool, on the main menu.

Most sections you will take one quiz over the material covered during the video lectures. As mentioned previously, quizzes represent 50% of your final grade in this course. There are a total of eleven quizzes, and the lowest one is automatically dropped by Brightspace. Each quiz represents 5% of your final grade (not the percentage shown on Brightspace). Students are allowed to makeup one additional quiz by completing the Makeup Quiz, details for which are explained later in this syllabus, under Make Up Work Policies.

The quiz types and methods may vary between short answer, essay, multiple choice, multiple-multiple, etc; but, will typically consist of multiple choice. There are no time limits on quizzes; but, be sure that they are completed by 11:55pm on the specified nights when they are due. In the event of essay and short-answer questions, I expect near-perfection because of my open quiz policy, also discussed later in this syllabus. Simply repeating two or three words from the book will not suffice—I want to know that you grasp the concepts we discuss in my class.

You are permitted to use your personal notes and study guides on all quizzes and discussion boards in this course; in fact, I highly recommend that you use your book on those specificed assignments in this course. I allow you the opportunity to attempt each quiz twice (or retake each quiz once; however, you prefer to phrase it). Once finished, the quiz will not show you the correct answers; instead, you must reevaluate and find the correct answers on your own before you retaking the quiz again. The objective of these quizzes is to encourage critical thinking and provide students with the opportunity to take the material to heart—not simply memorize it for a few hours.

Again, make sure that your quizzes are completed by 11:55p on their required nights. If you retest and score lower on your second attempt, the higher of the two grades will be the grade automatically recorded and used by Brightspace. I believe that two opportunities to take a quiz (with your book) should provide anyone (who does the required work) with the means to ace every quiz in the course. However, because of the fact you can use your notes/study guides and may retake a quiz:

THERE ARE NO RESETS FOR QUIZZES---FOR ANY REASON---EVER.

No exceptions... Don't even ask me about it...

No, like, really...

Typically, when students used to ask me to reset a quiz, it was because of a computer error. Because of this fact, I feel it necessary to alert you to a few things:

- 1. If the computer freezes on your first quiz attempt, you need to change computers before beginning your second attempt. I understand that technology does not always work properly but since this is an online class, I expect that you already have the technology and the technological know-how to produce competent results in this non-traditional environment; as well as, a proven backup plan for when/if that technology fails you. A broken computer will never be considered a valid reason for poor performance or defaulting on an assignment. If you chose to take this course knowing that it requires ample knowledge of Brightspace, computers, media players, etc..., but do not have the ability to operate and function with such things, you will not be excused for poor performance. You chose this online class—you need to make your technology work.
- 2. I highly recommend using the MCC library computers for quizzes, because they often prove the most dependable in an online testing environment. If you only have access to one computer, you need to designate an alternative computer, as soon as possible, to use as a backup before beginning to take quizzes in this course.
- 3. You will receive a zero when you do not record a quiz grade by the specified time.
- 4. A quiz listed as "In Progress" at/after the deadline will result in a grade of zero for that quiz.
- 5. If you have any problems with this policy, I recommend taking a face-to-face course that does not require these strict technological expectations for quizzes and/or exams.
- 6. With regards to last-minute assignments please remember the old adage: Failure to plan on your part does not constitute an emergency on my part.
- 7. If/When Brightspace goes down during a crucial time, issues will be dealt with when Brightspace comes back online. Due dates may be adjusted to reflect any changes.

There is only one primary discussion board forum that is placed in about the midpoint of the course. Students must post one initial post, generally no shorter than two paragraphs with three sentences each; and a follow up response post to one other post from a different classmate. A response should also be the same minimum length as the first post and will be graded on a rubric. Each post is worth 5% of the final course grade.

With regards to the two exams: each student is required to complete two proctored exams during this course—a comprehensive Midterm and a comprehensive Final. During the scheduled exam periods, students will have no other assignments due in this lecture course because I consider the exams to be the primary assignments. Students may continue to take quizzes scheduled after the Midterm, before taking the Midterm (if you so choose), but know that the exams have strict deadlines and that you will receive a zero as your Midterm/Final exam grade for defaulting on the required exams. You may complete quizzes in advance, just be sure that you still complete the exams by their scheduled dates.

In order to comply with the aspect of a proctored exam, you will be required to test via either ProctorU, Proctorio, Respondus Lockdown, or Zoom, which also requires the use of a computer with a webcam and a microphone.

I also request that you complete quizzes in order—meaning do not skip section/units that include lectures when working ahead. The lectures go in order and it might make things hard for you to study if you break the order.

The Midterm Exam will be twenty-five, randomly selected multiple-choice questions that originate from all lectures given prior to the scheduled time of the Midterm and two randomly-selected short answer essay questions that originate from the end of the textbook chapters. The Final Exam will consist of forty, randomly selected multiple-choice questions that originate from all of the lectures given throughout the course and three randomly selected short-answer essay questions that originate from the end of the textbook chapters.

The Midterm Exam is worth 15% of your final average (the same as three quizzes) and the Final Exam is worth 25% of your final average (the same as five quizzes). The Final Exam is worth about twice the percentage of your Midterm Exam because the Final Exam requires you to know double the information of the Midterm Exam. You are only allowed to attempt the Midterm Exam and Final Exam once—neither exam may be retaken for a higher grade. Also, you will not be allowed to use notes, books, or any type of assistance on the Midterm or Final Exams, but know that the multiple choice questions will be pulled from the same banks as your section quizzes and you will have knowledge of which potential short answer essay questions will appear. There are no time limits for either exam.

For both exams and the discussion board, there will be primary content folder tabs available on the main menu for Brightspace that include the exam portals, directions on arranging/taking the exam, materials that you might need to review before beginning the exam, and the information relevant to the discussion board posts. The due dates for both exams and the discussion board posts are posted under the Syllabus/Schedule section in Brightspace.

I realize that you took an online class for a reason, but please understand that I am also requiring a proctored Midterm and Final Exam for a reason. You will be required to use a proctoring system like Respondus Lockdown, ProctorU, or Proctorio.

The MCC Testing Center only allows students with established ADA accommodations—all other testing is done fully online. The MCC Testing Center may also elect to test via online tools, as well.

Late Work, Attendance, and Make Up Work Policies:

I do not accept late work in any of my online classes because students have plenty of time to properly complete the various required assignments. I do not reopen sections once they close—for any reason. Students cannot makeup the Midterm or Final Exams.

However, Brightspace does drop the lowest quiz grade automatically and I do provide students with an opportunity to makeup one quiz grade, but only only specific sections of the course. The Makeup Quiz will be deployed in its own tab, similarly to the course work setup via sections. The Makeup Quiz replaces a student's lowest quiz grade and is completely optional. The Makeup Quiz is a comprehensive quiz that covers numerous sections (which will be specified in the folder). It will be twenty questions long, with no time limit, and is designed to serve as a miniature practice run for the Final Exam. In an effort to help you prepare for the Final Exam, I allow students to take the Makeup Quiz up to three separate times and use their personal notes/study guides. The Makeup Quiz often represents the sole opportunity for extra-credit in the course. If your Makeup Quiz grade is lower than your lowest regular quiz grade, the Makeup Quiz grade will not be added; meaning, I will only use your highest grades.

Once again, just to review, I may choose to open multiple sections to students who wish to work ahead. In those instances, work can always be completed early for full credit, but it cannot be submitted late.

Student Behavioral Expectations or Conduct Policy:

Students are expected to maintain a classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of this educational opportunity.

MCC Academic Integrity Statement:

* <u>Click Here for the MCC Academic Integrity Statement</u>

(www.mclennan.edu/academic-integrity)

The link above will provide you with information about academic integrity, dishonesty, and cheating.

Whether or not you cheat on assignments, know that many students do cheat in an online environment. I try to remove the need for you to cheat, by letting you use your book, take quizzes multiple times, and complete a majority of the course wherever you physically feel the most comfortable. But, any student who is found guilty of academic dishonesty such as cheating, plagiarism, or collusion on any problem on an assignment, quiz, test, (etc.) will receive an F for his/her semester grade, be reported to the office of Student Development, and could even be recommended for suspension from the McLennan Community College District. Please refer to my Overview of the Syllabus video, under the Syllabus/Schedule tab, for clarification. The weight of the compromised assignment is irrelevant—the punishment of failing semester grade will be the same.

I POSSESS ZERO TOLERANCE FOR CHEATING, COLLUSION, AND/OR PLAGIARISM.

Often, in particular on short-answer or essay quizzes, I do not mind when students seek outside, scholastic material to locate additional information on various topics. However, be sure that you realize that you cannot simply copy something and pass it off as your answer. Every semester, I will find examples of when students, in a panic, copy-paste materials off of the Internet as their answers. If you do this, you will fail the semester and be reported—so do the right thing. Anyone caught (or even highly suspected of) cheating or plagiarizing on an assignment will have grounds to fail the course for the semester and be reported to the disciplinary council. If a student is unsure as to what constitutes cheating/plagiarism, he/she needs to ask for clarification before submitting an assignment. When applicable, it is a student's obligation to verify

the authenticity of his/her work through proper citations. Even "accidental" cheating can result in a failing grade for the semester and a report to the disciplinary council.

On occasion, two students in this course may share a common bond (married, friends, siblings, etc...) and if you fit into that category, you must notify me within the first two sections of class. This is because students with a common bond occasionally experience issues that should be addressed before completing much of the course. We can talk about these various issues, once they arise. Failure to notify the instructor about a common bond may result in strict consequences, as determined by the instructor.

MCC Attendance Policy:

* Click Here for the MCC Attendance/Absences Policy

(https://www.mclennan.edu/highlander-guide/policies.html)

Click on the link above for the college policies on attendance and absences. Your instructor may have guidelines specific to this course.

Regular and punctual attendance is expected of all students, and each instructor will maintain a complete record of attendance for the entire length of each course, including online and hybrid courses. Students will be counted absent from class meetings missed, beginning with the first official day of classes. Students, whether present or absent, are responsible for all material presented or assigned for a course and will be held accountable for such materials in the determination of course grades. In the case of online and hybrid courses, attendance will be determined in terms of participation, as described in the course syllabus.

In this course, a student is marked absent when she/he fails to complete that section's assignment.

Absence from 25 percent of scheduled lecture and/or laboratory meetings will be taken as evidence that a student does not intend to complete the course, and the student will be withdrawn from the course with a grade of W. The instructor may reinstate the student if satisfied that the student will resume regular attendance and will complete the course.

If the student's 25 percent absences are reached after the official drop date, the instructor may assign a W, if the student is passing and requests to be withdrawn. However, if a student who is not passing reaches the 25 percent point after the official drop date, the student will receive an F. In extenuating circumstances, the instructor may assign a W to a student who is not passing.

Each absence will count toward attendance requirements in each course.

Students will be permitted to make up class work and assignments missed due to absences caused by (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family or (4) the observance of a religious holy day. Also, the instructor has the prerogative of determining whether a student may make up work missed due to absences for other reasons. It is the student's responsibility to inform the instructor of the reason for an absence and to do so in a timely fashion.

McLennan Community College shall excuse a student from attending classes or other required activities including examinations for the observance of a religious holy day, including travel for that purpose. Students are required to file a

written request with each instructor for an excused absence. A student whose absence is excused for this observance may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. Religious holy day means a holy day observed by a religion whose places of worship are exempt from property taxation under the Texas Tax Code.

Any student who does not drop him/herself before November 14, and exceeds four absences, will stay enrolled in the course and receive the grade she/he earns.

Other random important information:

- The videos are uploaded and streamed in high definition from YouTube. Any students using mobile hotspot connections may experience issues with available data. If you live in a remote area or have trouble streaming the videos because of your bandwidth access, message me and we can arrange a way for you to transfer all of the lecture videos onto a DVD or flash-drive so that you can access them without worrying about your monthly data limits of bandwidth.
- 2. I may ask you to come meet with me in my office sometime. I realize that you may live one hundred miles away, but know that I am not asking to speak with you for a non-important reason.
- 3. If you are having trouble accessing the lectures or with Brightspace in general, call the MCC Help Desk at 254-299-8077 or email them at <u>helpdesk@mclennan.edu</u>
- 4. The technological requirements for this course and program links are posted toward the bottom of the Syllabus/Schedule tab.
- 5. The instructor has the power to provide additional credit for assessing a student's knowledge, skills, and abilities, as pertaining to the course and course material, on a case-by-case basis (both individually or collectively).
- 6. The instructor has the power to make adjustments to testing locations and questions, as he deems fit.
- 7. This syllabus is a living document and, at any time, the instructor reserves the right to amend this syllabus for the benefit of the class to counter unforeseen issues.
- 8. Times are enforced in Central Standard Time.

Updated 07/18/2023

MCLENNAN COMMUNITY COLLEGE

ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit <u>www.mclennan.edu/disability</u>.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

<u>disabilities@mclennan.edu</u> 2542998122 Room 319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at <u>titleix@mclennan.edu</u> or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a

MCC

ACADEMIC RESOURCES/POLICIES, Page 2 of 4

Updated 07/18/2023

confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <u>http://www.lighthouse-services.com/mclennan/</u>. Go to McLennan's Title IX webpage at <u>www.mclennan.edu/titleix/</u>. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <u>http://www.mclennan.edu/campus-resource-guide/</u>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (https://www.mclennan.edu/academic-support-and-tutoring/).

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to <u>https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg</u>. Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

MCC

ACADEMIC RESOURCES/POLICIES. Page 3 of 4

Updated 07/18/2023 Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html to find out more about the emergency grant. The application can be found at https://www.mclennan.edu/foundation/docs/Emergency Grant Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to https://www.mclennan.edu/center-for-

teachingandlearning/FacultyandStaffCommons/requirements.html for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are

MCC

ACADEMIC RESOURCES/POLICIES, Page 4 of 4

Updated 07/18/2023 expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- Email Setup for iPhones and iPads
- **Email Setup for Androids**

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to MCC's Tech Support Cheat Sheet or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.