

**The University of Texas at Tyler**  
**College of Business and Technology**  
**School of Human Resource Development and Technology**  
**Course Syllabus**

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**COURSE:** TECH 5380

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**COURSE TITLE:** Management of Nanomaterials

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**SEMESTER/YEAR:** Summer II 2020

Phone: 903 565-5911

**Course Description**

The course covers the emphasis on patent, legal implications, regulations, and logistics of manufacturing nanomaterials.

**Delivery of Course:** Online

**Prerequisite(s):** n/a

**Textbook(NONE):**

**Course Competencies**

- Understand the implications of innovations of nanotechnology
- Understand different cases studies involving company strategic and business planning of creating nanomaterials
- Understand management of nanomaterials in the workplace and prevention measures
- Understand the function of the logistical operations of nanomaterials

<b>Course Competencies</b>	<b>TECH 5380</b>
<b>Computer-Based Skills</b> – the student will complete written assignments using the word processor.	X
<b>Communication Skills</b> – the student will exhibit a mastery of both written and oral skills in completion and presentation of the assigned projects.	X
<b>Interpersonal Skills</b> – the student will interact in class discussion to clarify thinking regarding technological progress.	X
<b>Problem Solving (Critical Thinking)</b> – the student will use conceptual thinking to analyze and make determinations regarding the use of industrial processing equipment.	X
<b>Ethical Issues in Decision Making and Behavior</b> - the student will gain an appreciation of the ethics of technology through examination of various processing.	X
<b>Personal Accountability for Achievement</b> – the student will complete the projects at the time designated by the instructor and will enter the class discussion.	X
<b>Competence in Technology Principles</b> a. Competence in major field and grounding in other major technology major core areas – the student will gain an appreciation of the benefits and problems of technological growth.  b. Exposure to and appreciation for industrial experiences such as industrial tours, work-study options and cooperative education, senior seminars – This competency is not addressed in this course	X

At the end of the course, students learning outcomes should be achieved in the Industrial Technology program along with assessments used:

Students will be able to appreciate implications of innovations of nanotechnology. <i>(by earning a grade of 80% or higher on assignments)</i>
Students will be able to conceptualize to how company strategic and business planning of creating nanomaterials/advance materials <i>(by earning a grade of 80% or higher on assignments)</i>
Students will be able to conceptualize and understand the management of nanomaterials in the workplace <i>(by earning a grade of 80% or higher on assignments)</i>
Students will be able to conceptualize and understand the logistical operations of transporting nanomaterials/advance materials <i>(by earning a grade of 80% or higher on assignments)</i>

### Course Format

The course involves discussions, case studies, current readings, and YouTube videos. Student responses on the discussion board should have quality content to demonstrate critical-thinking and creativity. For further explanation, see **Canvas Discussions**.

### Semester Schedule (or Course Outline)

Day Assignment is Released	No.	Topic/Activity	Readings/Articles
July 6		<b>Introductions</b>	-
July 6	1	<b>What is of Nanotechnology &amp; Ethics in Nanotechnology</b>	Assignment <b>DUE JULY 10</b>
July 13	2	<b>Safety and Risk Management of Nanomaterials</b>	SEE CANVAS (Discussion Section)
July 13	2	<b>ASSIGNMENT</b>	<b>DUE JULY 17</b>
July 20	3	<b>Managing Prevention Measures of Nanomaterials in the Workplace</b>	----
July 20	3	<b>ASSIGNMENT</b>	<b>DUE JULY 27</b>
July 28	4	<b>Transporting of Nanomaterials</b>	---
July 28	4	<b>ASSIGNMENT</b>	<b>DUE AUGUST 4</b>
August 7	5	<b>FINAL MINI PROJECT DUE</b>	<b>August 7</b>

**All assignments** (not Discussion Board) are required to have:

- Name, Class, date, and assignment # in the upper right-hand corner
- All sources will be in APA 6<sup>th</sup> Edition
- Grammar and spelling must be checked before uploading assignment

**THESE THREE REQUIREMENTS ARE NOT MET, THERE IS A 10 POINT REDUCTION IN ASSIGNMENT GRADE AND THIS CAN REFLECT YOUR GRADE!!!!!!**

<u>Grading</u>	<u>Percentage</u>
Internet Assignments/Assignments	20%
Online/In-Class Discussion	35%
Mini Project	45%

Please refer to the point accumulation break down for each letter grade

A	=100-90
B	= 89-80
C	= 79-70
D	= 69-65

**Note: 89.99999999999999 is still a B.**

**Using CANVAS for Turning in Assignments (PLEASE READ CAREFULLY!!!!)**

Blackboard will be the tool for communication and turning in assignments. **ALL ASSIGNMENTS WILL OPEN UP AT 7AM AND TURNED IN PROMPTLY AT 11PM.** Folders will be created for each assignment to upload your assignments. Each assignment will have a due date. **IF YOU DO NOT MEET THE DUE DATE FOR THE ASSIGNMENT, THE FOLDER WILL DEACTIVATE/DISAPPEAR, THEREFORE, YOU WILL NOT BE ABLE TO TURN IN YOUR ASSIGNMENT TO RECEIVE CREDIT.** The only exception to turn in an assignment after the due date is if you are ill (with a written excuse) or technical difficulties. **IT IS YOUR RESPONSIBILITY TO COMMUNICATE WITH TECHNICAL SERVICES TO RESOLVE YOU BLACKBOARD MALFUNCTIONS.**

**Blackboard Discussions (Please read carefully!!!!)**

The online course format requires communication between students to stimulate conversation and feedback on the topics. In order to receive credit/points for every discussion posted, **you MUST respond to at least two students. IF YOU RESPOND TO ONE PERSON, YOU WILL ONLY RECEIVE 15 PTS!!!!!!**

**What will not be tolerated?(PLEASE READ CAREFULLY)**

Graduate students will perform at a higher level than undergraduate students. Plagiarism will not be tolerated in the Department of Technology as well as for the college. The purpose of graduate work is to provide students with more advanced learning in a specialized discipline or sub-discipline. Graduate school gives an in-depth understanding such that the student becomes something of an expert in the topic of study.

For this course, there will be no group assignments, only individual assignments which align with the meaning of graduate work.

If a student plagiarized, there will be a conference with the instructor and chair to explain the evidence and the consequences. Safe Assign™ software will be used to indicate any cheating occurred. If plagiarism occurred between one or two students, a zero counted as a grade. Furthermore, you may be subjected to a hearing from the Student Affairs Office to determine if you will be expelled from the University of Texas at Tyler.

If you feel that the penalty is unjustified, you can appeal it to Chair of the Department. We as faculty want our graduate students to have an enriching learning experience and to be accountable for their actions.

### **Grade Dispute**

If you have a disagreement with your final grade, you have **1 week to resolve it**. You must email all assignments when meeting with the instructor by phone or zoom.

### **Exam Date:**

**August 7-8, 2020**

### **Date to Withdraw Without Penalty:**

**July 28, 2020**

### **Assessments for Learning**

The online course will consist of test (essay), presentations, projects, and internet assignments. A rubric will be used to assess papers.

### **Supplemental Resources:**

*Journal Articles/Books*

**Journal of Nanotechnology Law & Business**

**Nanotechnology Patenting in the US**

[http://www.nanoscienceexchange.org/Patenting\\_Nanotech\\_Inventions\\_\(RajBawa\).pdf](http://www.nanoscienceexchange.org/Patenting_Nanotech_Inventions_(RajBawa).pdf)

*Websites*

**Nanotechnology Law & Business** <http://www.nanolabweb.com/>

**LJN's Product Liability: Law & Strategy**

<http://www.chadbourne.com/files/Publication/7d993d54-6364-4a90-9c7f-fe05f4f30b29/Presentation/PublicationAttachment/d945ecff-467a-4d70-8d1a-4074a2056b98/Wallace%20LJN%20Nano%20piece%201%2008.pdf>

Getting Into Class

**Independent Science News** <http://independentsciencenews.org/health/community-law-and-nanotechnology/>

## **Nanotechnology: Environmental Law, Policy, and Business Considerations**

<http://apps.americanbar.org/abastore/index.cfm?section=main&fm=Product.AddToCart&pid=5350186B>

## **Patenting Nanotechnology**

<http://www.wcsr.com/resources/pdfs/nano030310.pdf>

## **Survey of Nanotechnology Patents Trends**

[http://www.foley.com/files/tbl\\_s31Publications/FileUpload137/1576/nano\\_patent\\_trends.pdf](http://www.foley.com/files/tbl_s31Publications/FileUpload137/1576/nano_patent_trends.pdf)

The start page for class is <http://www.utt Tyler.edu/HRDT/.htm>

### **Attendance and Make-Up Policy:**

Attendance is expected in this course in order to achieve maximum learning for all participants. Unforeseen circumstances do sometimes arise, so periodic absences may occur. If you find that you must miss a class meeting, please contact the instructor *prior* to the start of class. Please be on time. If you must arrive late, let the instructor know prior to the start of class. Laptops are permitted but the wireless internet card must be disabled during the class. Also, cell phones must be turned off and put away during class.

If a student is sick or have a death in the immediate family, the instructor will discuss the arrangements for turning in make-up work. The student must have written proof too make up an assignment or exam.

### **Writing Assistance**

Each student is entitled to free writing assistance in the Writing Center. Students who take advantage of this service will receive five extra points on essay grades if they take their drafts to the Writing Center. The student must provide documentation that he or she received assistance in the Center. **An appointment is strongly advised.**

### **Communication between Instructor and Student**

Please allow 1 to 3 days to respond back to you because I have two other courses to teach. Thank you for your patience.

### **Students Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.utt Tyler.edu/wellness/rightsresponsibilities.php>

### **UT Tyler Honor Code**

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

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### **UT Tyler a Tobacco-Free University**

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, and group support. For more information on cessation programs please visit [www.uttyler.edu/tobacco-free](http://www.uttyler.edu/tobacco-free).

### **Grade Replacement/Forgiveness and Census Date Policies**

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. (For Fall, the Census Date is Sept. 12.) Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date (Sept. 12th) is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

### **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation

of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

### **Disability/Accessibility Services**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a disability diagnosis such as a chronic disease, learning disorder, head injury or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with an Accessibility Case Manager. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR webpage (<http://www.uttyler.edu/disabilityservices/>) or the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to [saroffice@uttyler.edu](mailto:saroffice@uttyler.edu).

### **Student Absence due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester. Revised 09/16

### **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

### **Social Security and FERPA Statement**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

### **Student Standards of Academic Conduct**

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

i. "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks



constitutes a violation if they have been specifically prohibited by the person administering the test;

- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. “Plagiarism” includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another’s work and the submission of it as one’s own academic work offered for credit.

iii. “Collusion” includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by SafeAssign™, available on Blackboard.

### **UT Tyler Resources for Students**

- UT Tyler Writing Center (903.565.5995), [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu)
- UT Tyler Tutoring Center (903.565.5964), [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu)
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.



