



**Course Title: Applied GD&T**  
**Course #: AMT 210**

**Credit Hours: 3**  
**Semester: 5**  
**Cap:20**

**Faculty:** Dr.Raggs

**E-mail:** [raggs@navajotech.edu](mailto:raggs@navajotech.edu)

**Office:** Tech 325

**Office Phone:** 505-409-0663

**Office Hours** (face-to-face or online): Mon 1-2 pm-ONLINE

**Preferred Communication** (email and/or text; will respond within 24 hours):

**Modality** (face-to-face, hybrid, or online): Hybrid

**Class Location and Meeting Times** (if face-to-face):

**Meeting Hours and Online Hours** (if hybrid): (3.30- 4.50 pm Tue F/F and Thurs-Online)

**Required Materials:**

**Textbooks:**

**Tools:** Every Student is required to have a laptop with good internet connection and Access to Tooling-U software through book store@NTU

**Lab Fee (if applicable):** As applicable

**Mission, Vision, and Philosophy**

*Mission:* Navajo Technical University honors Diné culture and language, while educating for the future.

*Vision:* Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

*Philosophy:* Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íina (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

**Course Description**

Course Outcomes	Course Assessments
Explain and apply GD and T standards to communicate Design intent	Through Pretests(Quizzes) and Final Tests (Assignments)
Explain how certain processes can affect part design and documentation	
Explain how strength and stiffness affect the function of a part	
Explain how dimensional variation can affect a design	
Acquire added insight on working in a team design environment	

**Connections to Program Assessment (Course-Embedded Measures)**

## Course Activities

Week	Date	Class Topics/Reading Due	Assignments Due	Assessments
1	1/18-22	Basic Measurement 101 Calibration Fundamentals 111	Quiz #1	
	<b>1/22/2022</b>	Last day to add/drop		
2	1/24-28	Basics of Tolerance 121 Blueprint Reading 131	HW #1, Quiz #2	
3	2/1-4	Hole Standards and Inspection 141 Surface Texture and Inspection 201	HW #2, Quiz #3	
4	2/7-11	Measuring System Analysis 300	HW #3, Quiz #4	
5	2/14-18	Introduction to GD&T 301	HW #4, Quiz #5	
6	2/21-25	Major Rules of GD&T 311	HW #5, QUIZ #6	
	<b>2/25/2022</b>	Graduation Petition due		
7	3/1-4	GD&T Applications 312	HW #6, Quiz #7	
8	3/7-11	MidTerm	HW #7, <b>Midterm</b>	
	<b>3/12/2022</b>	Midterm grades due		
	<b>3/14-18</b>	<b>SPRING BREAK</b>		
9	3/21-25	Inspecting a Prismatic Part 321 Inspecting a Cylindrical Part 331	Quiz #8	
10	3/28-4/1	Advanced Hole Inspection 341 Inspecting with CMMs 361	HW #8, Quiz #9	
	<b>3/31/2022</b>	Last day to withdraw with "W"		
11	4/4-8	Calibration and Documentation 371	HW #9, Quiz #10	
12	4/11-15	Structured Light 3D Scanners 375	HW #10, Quiz #11	
13	4/18-22	3D Laser Scanners 376	HW #11, Quiz #12	
14	4/25-29	In-Line Inspection Applications 381		
15	5/2-6	Intro to GD&T 200 (1994) Interpreting GD&T 310 (1994)	HW #13, Quiz #14	
16	5/9-12	<b>End semester Examination</b>	<b>Finals</b>	
	<b>5/12/2022</b>	Grades due to the Registrar		
	<b>5/13/2022</b>	Graduation		

## Grading Plan

Homework: 40  
 Class Participation: 3  
 Project(s): 0  
 Quizzes: 5  
 Mid-term: 25  
 Final Exam: 25  
 Portfolio: 2

A = 100-90%  
 B = 89-80%  
 C = 79-70%  
 D = 69-60%  
 F = 59% or less

### **Grading Policy**

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

### **Participation**

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

### **Cell phone and headphone use**

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

### **Attendance Policy**

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

### **Study Time Outside of Class for Face-to-Face Courses**

**For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.**

### **Study Time for Hybrid or Blended Courses**

**For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.**

### **Study Time for Online Courses**

**For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.**

### **Academic Integrity**

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.**

### **Diné Philosophy of Education**

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íina and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwí Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwí core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumola:wa (honesty and trustworthiness), and hon kohoł lewuna:wediyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

### **Students with Disabilities**

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<http://www.navajotech.edu/student-services#accomodations-services>) in accordance with the university's Disability Accommodations Policy (see [http://www.navajotech.edu/images/about/policiesDocs/Disability Exhibit-A 6-26-2018.pdf](http://www.navajotech.edu/images/about/policiesDocs/Disability_ Exhibit-A_ 6-26-2018.pdf)).

### **Email Address**

Students are required to use NTU's email address for all communications with faculty and staff.

**Final Exam Date: Will be announced during the Course**