

**Science 6 (Chemistry)**

Basic Course Information		
<b>Course Number</b>	20202B	<b>Subject Category</b>
<b>Class Format</b>	Lecture	<b>Class Day and Number of Credits</b>
<b>Department</b>	College	<b>Student Category</b>
<b>Period of Study</b>	Semester 2	<b>Classes per Week</b>
<b>Required Materials</b>	General Chemistry First Edition, General Chemistry Textbook	
<b>Instructor</b>	D. Truett-Chapman	T. Truett-Chapman@uab.edu

**Course Objectives**

Objectives of this Chemistry course include to learn about the links between chemistry and societal engineering, based on the basic knowledge learnt in Chemistry 1 to 4.

Basic chemistry and inorganic chemistry are basic knowledge to many fields including agriculture, food, medicine, and application of chemistry. This course provides students with basic knowledge concepts of Organic Chemistry concepts of hydrocarbon compounds and transition compounds. For students chemistry involving concepts about metal elements, their properties and applications.

Students are expected to develop an appreciation of the fundamental laws and principles and their applications to solve typical problems.

The course also aims to develop students' skills, such as critical thinking, observing, and collaborating skills, through lab and group works that are less complex for abetal engineers to create something new.

Evaluation/Pubert	Student Level of Achievement - Very Good	Student Level of Achievement - Good	Unacceptable Level of Achievement - Fair
<b>Upper Learning of Organic Chemistry &amp; Inorganic Chemistry</b>	Theoretically understand and explain the contents.	Can understand of the basic terms and contents.	Lacks the appropriate knowledge and understanding.
<b>Mathematical and graphical representation</b>	Evaluations show good understanding and graphs are drawn with sufficient accuracy.	Evaluations show understanding and graphs are drawn with sufficient accuracy.	Evaluations are limited or inaccurate. Graphs are inaccurate or absent.

**Relationship with Learning Outcomes**

**LO1** Work knowledge on Science and Technology and practical ability to solve them to solve problems in **SO1** Creativity to make a new value with using the knowledge from various fields.

**LO2** As an engineer, attitude to act with awareness of social roles and responsibility to make a better

Teaching Method	
<b>Outline</b>	Students learn basic concepts and principles of Organic chemistry and Inorganic chemistry. The worksheets, textbook and presentations are designed to help the students to develop knowledge, problem solving skills and understanding.
<b>Class Format</b>	Lecture/tutorial
<b>Please Note</b>	All materials will be posted on the Canvas classroom. The students are expected to keep their course or file of all submitted material for reuse further study by themselves.

Course Plan	Semester 2	Contents and Method of Course	Goals	Related MCC
1st week	1.1. Alkali, alkaline earth metals and aluminum	1. Metals and transition metals	1. Compare the general physical properties of metals and non-metals.	1.1-1, 1.1-2, 1.1-3, 1.1-4, 1.1-5, 1.1-6, 1.1-7, 1.1-8, 1.1-9, 1.1-10, 1.1-11, 1.1-12, 1.1-13, 1.1-14, 1.1-15, 1.1-16, 1.1-17, 1.1-18, 1.1-19, 1.1-20, 1.1-21, 1.1-22, 1.1-23, 1.1-24, 1.1-25, 1.1-26, 1.1-27, 1.1-28, 1.1-29, 1.1-30, 1.1-31, 1.1-32, 1.1-33, 1.1-34, 1.1-35, 1.1-36, 1.1-37, 1.1-38, 1.1-39, 1.1-40, 1.1-41, 1.1-42, 1.1-43, 1.1-44, 1.1-45, 1.1-46, 1.1-47, 1.1-48, 1.1-49, 1.1-50, 1.1-51, 1.1-52, 1.1-53, 1.1-54, 1.1-55, 1.1-56, 1.1-57, 1.1-58, 1.1-59, 1.1-60, 1.1-61, 1.1-62, 1.1-63, 1.1-64, 1.1-65, 1.1-66, 1.1-67, 1.1-68, 1.1-69, 1.1-70, 1.1-71, 1.1-72, 1.1-73, 1.1-74, 1.1-75, 1.1-76, 1.1-77, 1.1-78, 1.1-79, 1.1-80, 1.1-81, 1.1-82, 1.1-83, 1.1-84, 1.1-85, 1.1-86, 1.1-87, 1.1-88, 1.1-89, 1.1-90, 1.1-91, 1.1-92, 1.1-93, 1.1-94, 1.1-95, 1.1-96, 1.1-97, 1.1-98, 1.1-99, 1.1-100, 1.1-101, 1.1-102, 1.1-103, 1.1-104, 1.1-105, 1.1-106, 1.1-107, 1.1-108, 1.1-109, 1.1-110, 1.1-111, 1.1-112, 1.1-113, 1.1-114, 1.1-115, 1.1-116, 1.1-117, 1.1-118, 1.1-119, 1.1-120, 1.1-121, 1.1-122, 1.1-123, 1.1-124, 1.1-125, 1.1-126, 1.1-127, 1.1-128, 1.1-129, 1.1-130, 1.1-131, 1.1-132, 1.1-133, 1.1-134, 1.1-135, 1.1-136, 1.1-137, 1.1-138, 1.1-139, 1.1-140, 1.1-141, 1.1-142, 1.1-143, 1.1-144, 1.1-145, 1.1-146, 1.1-147, 1.1-148, 1.1-149, 1.1-150, 1.1-151, 1.1-152, 1.1-153, 1.1-154, 1.1-155, 1.1-156, 1.1-157, 1.1-158, 1.1-159, 1.1-160, 1.1-161, 1.1-162, 1.1-163, 1.1-164, 1.1-165, 1.1-166, 1.1-167, 1.1-168, 1.1-169, 1.1-170, 1.1-171, 1.1-172, 1.1-173, 1.1-174, 1.1-175, 1.1-176, 1.1-177, 1.1-178, 1.1-179, 1.1-180, 1.1-181, 1.1-182, 1.1-183, 1.1-184, 1.1-185, 1.1-186, 1.1-187, 1.1-188, 1.1-189, 1.1-190, 1.1-191, 1.1-192, 1.1-193, 1.1-194, 1.1-195, 1.1-196, 1.1-197, 1.1-198, 1.1-199, 1.1-200, 1.1-201, 1.1-202, 1.1-203, 1.1-204, 1.1-205, 1.1-206, 1.1-207, 1.1-208, 1.1-209, 1.1-210, 1.1-211, 1.1-212, 1.1-213, 1.1-214, 1.1-215, 1.1-216, 1.1-217, 1.1-218, 1.1-219, 1.1-220, 1.1-221, 1.1-222, 1.1-223, 1.1-224, 1.1-225, 1.1-226, 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1.1-782, 1.1-783, 1.1-784, 1.1-785, 1.1-786, 1.1-787, 1.1-788, 1.1-789, 1.1-790, 1.1-791, 1.1-792, 1.1-793, 1.1-794, 1.1-795, 1.1-796, 1.1-797, 1.1-798, 1.1-799, 1.1-800, 1.1-801, 1.1-802, 1.1-803, 1.1-804, 1.1-805, 1.1-806, 1.1-807, 1.1-808, 1.1-809, 1.1-810, 1.1-811, 1.1-812, 1.1-813, 1.1-814, 1.1-815, 1.1-816, 1.1-817, 1.1-818, 1.1-819, 1.1-820, 1.1-821, 1.1-822, 1.1-823, 1.1-824, 1.1-825, 1.1-826, 1.1-827, 1.1-828, 1.1-829, 1.1-830, 1.1-831, 1.1-832, 1.1-833, 1.1-834, 1.1-835, 1.1-836, 1.1-837, 1.1-838, 1.1-839, 1.1-840, 1.1-841, 1.1-842, 1.1-843, 1.1-844, 1.1-845, 1.1-846, 1.1-847, 1.1-848, 1.1-849, 1.1-850, 1.1-851, 1.1-852, 1.1-853, 1.1-854, 1.1-855, 1.1-856, 1.1-857, 1.1-858, 1.1-859, 1.1-860, 1.1-861, 1.1-862, 1.1-863, 1.1-864, 1.1-865, 1.1-866, 1.1-867, 1.1-868, 1.1-869, 1.1-870, 1.1-871, 1.1-872, 1.1-873, 1.1-874, 1.1-875, 1.1-876, 1.1-877, 1.1-878, 1.1-879, 1.1-880, 1.1-881, 1.1-882, 1.1-883, 1.1-884, 1.1-885, 1.1-886, 1.1-887, 1.1-888, 1.1-889, 1.1-890, 1.1-891, 1.1-892, 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