

Registrar's Office Initiated Equivalencies

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The established guidelines will be given to the Registrar's Office. The courses meeting the conditions described within the listed guidelines will be given the appropriate transfer equivalencies without requiring additional departmental approval. These equivalencies will be done with the condition that the decisions made during this process are available for review by the CLAS department. Below is a set of general guidelines that all courses used in the Registrar's Office Initiated Equivalencies process will be subject to. Please see the attached pages following for specific guidelines for each course involved in the process.

Each course used in the Registrar's Office Initiated Equivalencies process must meet the following criteria:

- Has the same or similar department pre-fix
- Has a similar course title
- Taught at the lower division level
- Similar course content to CU Denver course (as determined by course description)
- Institution must be appropriately accredited
- Specific addition criteria as listed on subsequent pages

CU Denver Course	Course Title
CHEM 1000	Foundations of General Chemistry
CHEM 1474	Core Chemistry: Chemistry For the Consumer
CHEM 2031	General Chemistry I
CHEM 2038	General Chemistry Lab I
CHEM 2061	General Chemistry II
CHEM 2068	General Chemistry Lab II



CLAS Dean's Office

10 - 14 - 15

Date



CLAS Department Chair

10-14-15

Date

CHEM 1000- Foundations for General Chemistry

CU Denver Course Description

This is a lecture-only course intended for students pursuing a degree in science or a health-related field. Course is designed for students who have never had a chemistry course or who have not taken general chemistry in 5+ years. Topics include the classification of matter, the Metric system, dimensional analysis, atomic theory and the structure of atoms, periodic relationships, energy and temperature, gas laws and the kinetic molecular theory, compounds and nomenclature of inorganic compounds, the mole, stoichiometry, types of chemical reactions, balancing equations, electron configurations, chemical bonding, and other topics as time allows. Enrollment in this course is strongly encouraged prior to enrollment in Chem 2031 if the student does not have a strong and recent background in general chemistry.

Specific guidelines to be met:

Course might say "introductory".

Course will have no chemistry prerequisite.

Course may have a basic algebra prerequisite.

Course will not have a lab associated with it. If it does have a lab accept lecture credit as Chem 1000 and lab credit as Chem 1999AE.

Course is used as a prerequisite for the science major general chemistry sequence.

Description might include the following key words:

Stoichiometry, gas laws, states of matter, bonding, solutions, mole, periodic trends

Course description should not include kinetics, equilibrium, electrochemistry, thermochemistry.

Course title and/or description should not include organic or biochemistry. If it does transfer as Chem 1999AE.

One trimester or quarter cannot be equivalent and should be transferred as Chem 1999AE.

CHEM 1474- Core Chemistry: Chemistry For the Consumer

CU Denver Course Description

Focuses on the common household chemicals that affect US on a daily basis. Students learn the underlying chemistry of nuclear power, sunscreens, food, cleaning agents, etc. Home-based laboratory experiments with safe, common substances

Specific guidelines to be met:

Course might say "for non-majors".

Course must have a lab associated with it.

Description might include the following key words:

Consumers, chemistry and society, Chemistry Today, Chemistry in your World, Chemistry in Everyday Life, Chemistry applications.

Course title and/or description should not include organic or biochemistry. If it does transfer as Chem 1999AE.

One trimester or quarter cannot be equivalent and should be transferred as Chem 1999AE.

Please add anything specific that should be considered and will help a non-content area expert evaluate and make good judgements.

Please note that this is a course with a home based lab for non science majors. It cannot be used as a prerequisite for any other chemistry course.

CHEM 2031- General Chemistry I

CU Denver Course Description

This is the first of a two semester sequence designed for students pursuing a degree in science or a health related field. Chem 2031 is designed for students who have recently completed high school chemistry or Chem 1000 with a C- or better. Note: Non- science majors should review the course description for Chem 1474 as an alternative, non-majors science CU Denver Undergraduate Core course, with lab credit. Topics covered include the classification of matter, the Metric system, dimensional analysis, atomic theory and the structure of atoms, periodic relationships, empirical formulas, thermochemistry, gas laws and the kinetic molecular theory, compounds and nomenclature of inorganic compounds, the mole, balancing equations, stoichiometry, types of chemical reactions, solution stoichiometry and dilutions, electron configurations, chemical bonding, Lewis Dot Theory, Valence Shell Electron Pair repulsion Theory, and other topics as time allows. This course is a prerequisite or co-requisite for General Chemistry I Lab, Chem 2038. No co-credit with CHEM 2081. Note: a beginning course for science majors, medical technologists, pre-medical and pre-dental students. It is strongly recommended that students have taken CHEM 1000 and MATH 1110 or their high school equivalents to be adequately prepared to succeed in this course.

Specific guidelines to be met:

Course title may include General Chemistry I, General College Chemistry I, Principles of Chemistry I, General Inorganic Chemistry (lower division/entry level), Chemical Principles I, Fundamentals or Foundations of Chemistry I, College Chemistry I

Course might say "for science majors".

Course is part of a full year sequence.

Course must have a lab associated with it. The lab can be part of the lecture course or a separate lab course.

The sequence this course is part of is used as prerequisites for the organic chemistry chemistry sequence.

This course might have a college algebra prerequisite.

It is okay for the General Chemistry lecture and lab to be combined into the same course (do not have to be stand-alone), in which case students will receive the equivalent for both our lecture and lab course (CHEM 2031 and CHEM 2038).

Description might include the following key words:

classification of matter, the Metric system, dimensional analysis, atomic theory and the structure of atoms, periodic relationships, empirical formulas, thermochemistry, gas laws and the kinetic molecular theory, compounds and nomenclature of inorganic compounds, the mole, balancing equations, stoichiometry, types of chemical reactions, solution stoichiometry and dilutions, electron configurations, chemical bonding, Lewis Dot Theory, Valence Shell Electron Pair repulsion Theory.

Please add anything specific that should be considered and will help a non-content area expert evaluate and make good judgements.

When evaluating any general chemistry course, you need to review the entire general chemistry series for a school before assigning equivalencies for any one course. If the school only offers a one semester introductory or general chemistry course, it cannot be equivalent to Chem 2031 or Chem 2061 and be reviewed for either Chem 1000 or Chem 1474. If the course does not match either of Chem 1000 or Chem 1474 it should be transferred as Chem 1999AE.

One trimester or quarter cannot be equivalent to any one of these and should receive a generic number.

CHEM 2038- General Chemistry Lab I

CU Denver Course Description

Laboratory course designed to accompany Chem 2031. Topics include gravimetric analysis, statistical analysis, stoichiometry, Avogadro's number, thermochemistry, atomic spectroscopy, paper chromatography, and gas laws. No co-credit with CHEM 2088. Coreq: CHEM 2031.

Specific guidelines to be met:

Course Title should be similar to General Chemistry Lab I, General College Chemistry Lab I, Principles of Chemistry Lab I, General Inorganic Chemistry Lab(lower division/entry level), Chemical Principles Lab I, Fundamentals or Foundations of Chemistry Lab I.

Course might say "for science majors".

Course must be a lab.

Course may be listed as part of lecture (Chem 2031 equivalent). The lab portion must be at least 1 three-hour lab per week, otherwise assign as Chem 2999AE

The sequence this course is part of is used as prerequisites for the organic chemistry sequence.

Description might include the following key words:

gravimetric analysis, statistical analysis, stoichiometry, Avogadro's number, thermochemistry, atomic spectroscopy, paper chromatography, and gas laws.

One trimester or quarter cannot be equivalent and should receive a generic number.

CHEM 2061- General Chemistry II

CU Denver Course Description

This is a continuation of Chem 2031 and is the second course of a two semester sequence designed for students pursuing a degree in science or a health related field. CHEM 2061 builds upon the understanding of chemistry rooted in the molecular nature of matter and change from General Chemistry I and expands to include topics such as intermolecular forces, solution chemistry, kinetics, chemical equilibrium, acid-base chemistry, buffer chemistry, solubility, thermodynamics and time permitting, electrochemistry. Specific topics include: the use of bonding theories to explain the relationships between atomic structure, molecular shape, and macroscopic properties of matter including boiling point, vapor pressure, surface tension, viscosity, and capillarity; the understanding of molecular structure to explain the energetics of solution formation as well as vapor pressures of pure liquids and solutions; the application of rates of reactions to define the state of equilibrium; the application of problem solving techniques for systems at equilibrium to acid/base and solubility chemistry; and the thermodynamic underpinnings of chemical reaction rates and the spontaneous conversion of chemical species to attain a state of dynamic equilibrium. This course is a prerequisite or co-requisite for General Chemistry II Lab, Chem 2068. Prereq: CHEM 2031 or 2081 with a C- or higher. No co-credit with CHEM 2091.

Specific guidelines to be met:

Course title may include General Chemistry II, General College Chemistry II, Principles of Chemistry II, General Inorganic Chemistry (lower division/entry level), Chemical Principles II, Fundamentals or Foundations of Chemistry II, College Chemistry II

Must require the equivalent of CHEM 2031 as the Prereq

Course might say "for science majors".

Course must have a lab associated with it. The lab can be part of the lecture course or a separate lab course.

Course is part of a full year sequence.

The sequence this course is part of is used as prerequisites for the organic chemistry chemistry sequence.

This course might have a college algebra prerequisite.

It is okay for the General Chemistry lecture and lab to be combined into the same course (do not have to be stand-alone), in which case students will receive the equivalent for both our lecture and lab course (CHEM 2061 and CHEM 2068).

Description might include the following key words:

intermolecular forces, solution chemistry, kinetics, chemical equilibrium, acid-base chemistry, buffer chemistry, solubility, thermodynamics and time permitting, electrochemistry, the use of bonding theories to explain the relationships between atomic structure, molecular shape, and macroscopic properties of matter including boiling point, vapor pressure, surface tension, viscosity, and capillarity; the understanding of molecular structure to explain the energetics of solution formation as well as vapor pressures of pure liquids and solutions; the application of rates of reactions to define the state of equilibrium; the application of problem solving techniques for systems at equilibrium to acid/base and solubility chemistry; and the thermodynamic underpinnings of chemical reaction rates and the spontaneous conversion of chemical species to attain a state of dynamic equilibrium

Two trimesters or two quarters are equivalent to one semester and should be equivalent to Chem 2031/Chem 2038.

CHEM 2068- General Chemistry Lab II

CU Denver Course Description

Laboratory course designed to accompany Chem 2061. Topics include colligative properties, spectroscopic analysis, kinetics, equilibrium, acid-base chemistry, titrations, and qualitative analysis of metal cations. No co-credit with CHEM 2098. Prereq: CHEM 2038 or 2088 with a C- or higher. Coreq: CHEM 2061 or 2091.

Specific guidelines to be met:

Course Title should be similar to General Chemistry Lab II, General College Chemistry Lab II, Principles of Chemistry Lab II, General Inorganic Chemistry Lab(lower division/entry level), Chemical Principles Lab II, Fundamentals or Foundations of Chemistry Lab II.

Course might say "for science majors".

Course must be a lab.

Course may be listed as part of lecture (chem 2061 equivalent). The lab portion must be at least 1 three-hour lab per week, otherwise assign as Chem 2999AE

The sequence this course is part of is used as prerequisites for the organic chemistry sequence.

Description might include the following key words:

colligative properties, spectroscopic analysis, kinetics, equilibrium, acid-base chemistry, titrations, and qualitative analysis of metal cations.

Two trimesters or two quarters are equivalent to one semester and should be equivalent to Chem 2031/Chem 2038.

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CU Denver Course	Course Title
CHEM 2300	Nutritional Chemistry
CHEM(or source discipline subject code) 1999AE or 2999AE	Does not meet slam dunk for CHEM 2300 and is from a science discipline
CLAS 1999AE or 2999AE	Does not meet slam dunk for CHEM 2300 and is not from a science discipline


 CLAS Dean's Office 4/17/2018
 Date


 CLAS Department Chair 4/13/2018
 Date

CHEM 2300-Nutritional Chemistry

Registrar's Office Initiated Equivalency Guidelines

CU Denver Description:

This survey course develops a basic understanding of ecological relationships and environmental systems. Introduces nutrition intended primarily for majors in nursing, physical therapy, physical education. Topics include structure and metabolism of carbohydrates, lipids and proteins, functions of vitamins and minerals and food constituents. Prereq: CHEM 1000 or CHEM 1474 or CHEM 2031 with a C- or better. Max hours: 3 Credits.

Specific guidelines to be met:

Title includes nutrition or health

Course is lower division

Course is intended for science or health care majors

Prerequisites should include an Introductory Chemistry course

Course may come from Chemistry or other science disciplines

Topics should include a majority(70% or more) of the following:

1. designing a healthy diet
2. the human body: digestion and absorption
3. structure and function of carbohydrates, proteins, fats. Sources and requirements of each
4. fluid and electrolytes
5. minerals and vitamins involved in energy metabolism
6. minerals and vitamins necessary for healthy tissues
7. Healthful body weight
8. Nutrition and fitness
9. Food safety
10. Nutrition through the life cycle
11. Food safety and technology

Alternate titles to consider: Nutrition, Human Nutrition, Science of Nutrition, Intro, Basics, Foundations, Survey, Essentials or Principles of Nutrition, Nutritional Science, Nutrition and Metabolism, Nutrition for Health

CHEM(or source science discipline subject code) 1999AE or 2999AE

Registrar's Office Initiated Equivalency Guidelines

CU Denver Description:

If a lower division level nutrition or health course is transferred in and comes from a science discipline and does not meet the slam dunk for CHEM 2300, please retain source subject code and give generic lower division level credit. Please allow these courses to count as Core science(with a lab when appropriate) as they meet the requirement for Core natural and physical science.

Specific guidelines to be met:

Title includes nutrition or health

Course is lower division

Course originates in a natural or physical science discipline

Course is science based

CLAS 1999AE or 2999AE

Registrar's Office Initiated Equivalency Guidelines

CU Denver Description:

If a lower division level nutrition or health course is transferred in and does not come from a science discipline and does not meet the slam dunk for CHEM 2300, please change the subject code to CLAS and give generic lower division level credit. Please do not allow these courses to count as Core science as they tend to be more social science oriented than natural and physical science oriented.

Specific guidelines to be met:

Title includes nutrition or health

Course is lower division

Course does not originate in a natural or physical science discipline

Course is focused on dietary nutrition, rather than science based

