



## CSKL 0100

### Chemistry Skills

#### COURSE DETAILS

**Course Dates:** Sept 10, 2019 - Dec 9, 2019

**Instructor(s) Name:** Dr. James Xidos

**Office Location:** 520A Parker

**Office Hours or Availability:** TBA

**Email:** James.Xidos@umanitoba.ca

#### COURSE DESCRIPTION

The Chemistry Skills (CSKL 0100, 0.000 credit hours) course is designed for students with little or no background in chemistry who wish to achieve the prerequisites for advanced courses, or for students who require a refresher course in basic chemistry. Concurrent registration in CSKL 0100 and any of CHEM 1300, CHEM 1301, CHEM 1311, or CHEM 1320 is not permitted (Pass/Fail grade only). Prerequisite or Concurrent Requirement: Any Grade 12 or 40S Mathematics course or the equivalent.

It is your responsibility as a student to ensure that you are entitled to be registered in this course. The course is also useful for those who are not going to specialize in chemistry, because it offers information that can be helpful in becoming a knowledgeable individual and learning about substances that comprise our environment. The course focuses on the thorough and meaningful understanding of a few basic concepts at the expense of rapid treatment of many subject areas, on the development of important reasoning skills, and on acquiring a positive initial impression of chemistry.

Contact Hours: 36

Delivery Format: Online

## LEARNING OUTCOMES

Upon completion of this course, you should be able to:

- explain why the study of chemistry is important;
- define the scientific approach to problem solving;
- describe the characteristics and explain the concept of matter;
- differentiate between a pure substance and a homogeneous or a heterogeneous mixture;
- express numbers in scientific notation and explain the role and use of significant figures;
- name the standard units of measurement and solve problems involving density and unit conversions;
- convert measurements between the temperature scales;
- use the periodic table of the elements;
- recognize a physical or chemical change in a substance;
- describe the basic structure of the atom
- understand isotopes, write their chemical symbols, and compute average molar masses for an element
- use the language of chemistry, such as nomenclature;
- apply the main concepts of chemistry (i.e., the mole, molar mass, and Avogadro's number) to solve problems;
- interpret, write, and balance chemical equations;
- classify chemical reactions according to their types;
- perform stoichiometry calculations from chemical equations;
- explain the properties of gases and apply selected gas laws for problem solving;
- solve problems involving molarity, dilution, mass, and volume percentages;
- name acids and bases and describe their reactions;
- explain the properties of electrolytes and nonelectrolytes and write net ionic equations; and
- balance equations for ionic oxidation-reduction reactions and recognize oxidizing and reducing agents.

## COURSE MATERIALS

The following required materials are available for purchase from the [University of Manitoba Bookstore](#). Please order your materials immediately, if you have not already done so.

Additional readings may be provided and can be accessed via UM Learn.

### Required Textbook

A customized textbook containing selected chapters from:

Hein, M. & Arena, S. (2016). *Foundation of College Chemistry 15<sup>th</sup> edition*. Hoboken, NJ: John Wiley & Sons.

- The customized textbook, *Foundation of College Chemistry*, will include an access code for: Sapling Learning Homework Code for Introductory Chemistry.
- **Please note:** Reproduction of custom editions are subject to the original source material(s) being in print. If you wish to make use of this custom edition, I recommend contacting John Wiley & Sons Canada sales representative Justin Roper. Justin will be able to confirm availability. I have included Justin, as well as my colleague Michael Baspaly (our designated course materials buyer for Chemistry) on this reply.

### Optional Textbook

Appling, J.R. & Richardson, J.C. (2008) *Math: Survival Guide, Tips and Tricks for Science Students, 2nd Edition*. Hoboken, NJ: John Wiley and Sons.

### Required Hardware and Software

A non-programmable, scientific calculator is required

Registration Code for Sapling Learning (Canada) online assignment system.

### Websites

Online assignments will be performed through the Sapling Learning website, Canada:

- There are ten (10) assignments, all have equal weight. See the Course Schedule for the due dates.
- No extensions or make-up possibilities will be given for any assignment. Special cases may be considered only for documented medical or compassion reasons.

\*For more information on the university's learning management system, UM Learn, as well as hardware and software requirements to access UM Learn, please refer to the Student Quick Start Guide.

## SETTING UP YOUR COMPUTER

### Adobe Acrobat

To view or print a document in PDF format, you need a PDF viewer (Adobe Acrobat). If you have not already done so, you can download the [Adobe Acrobat Reader](#) for free.

**NOTE:** For printing, your printer driver needs to be configured for printing to a PostScript Level 1 printer.

- **Windows:** Select "Level 1" in the PostScript options section of the Acrobat Exchange or Reader print dialog.
- **Macintosh:** In the Chooser, select your printer driver. Then select your printer and click the Setup button. Follow any on-screen dialogs that may appear.

### Sapling Learning (Canada) Online Assignment System:

Detailed instructions for the setup of (and your registration to) your CSKL 0100 Sapling Learning account are provided on the course website through the "Assignments" section. Registration **must** be completed using the link provided in Content / Sapling Learning. More detailed information is provided in Assignments window on UM Learn. We strongly recommend that you register for Sapling Learning as soon as possible. If you encounter difficulties in registering or using for Sapling Learning, contact support at:

<https://macmillan.force.com/macmillanlearning/s/contactsupport>

## COURSE SCHEDULE

Week/Dates	Unit/Topic	Activities	Assessments
<b>Week: 1</b> <b>Dates: Sept 10 - 16</b>	Unit 1: An Introduction to Chemistry	Textbook: Chapter 1 UM Learn: Unit 1	Assignment 1 <b>DUE DATE: Sept 24</b>
	Unit 2: Standards for Measurements	Textbook: Chapter 2 UM Learn: Unit 2	
<b>Week: 2</b> <b>Dates: Sept 17 - 23</b>	Unit 3: Elements and Compounds	Textbook: Chapter 3 UM Learn: Unit 3	Assignment 2 <b>DUE DATE: Oct 1</b>
<b>Week: 3</b> <b>Dates: Sept 24 - 30</b>	Unit 4: Properties of Matter	Textbook: Chapter 4 UM Learn: Unit 4	
<b>Online Quiz 1: Available on Sapling Learning Thurs, Oct 3, 8:00am – 11:00pm</b>			
<b>Week: 4</b> <b>Dates: Oct 1 - 7</b>	Unit 5: Early Atomic Theory and Structure	Textbook: Chapter 5 UM Learn: Unit 5	Assignment 3 <b>DUE DATE: Oct 8</b>
<b>Week: 5</b> <b>Dates: Oct 8 - 14</b>	Unit 6: Nomenclature of Inorganic Compounds	Textbook: Chapter 6 UM Learn: Unit 6	Assignment 4 <b>DUE DATE: Oct 15</b>
<b>Term Test 1: Thurs, Oct 17, 6:00pm – 7:00pm</b>			
<b>Week: 6</b> <b>Dates: Oct 15 - 21</b>	Unit 7: Quantitative Composition of Compounds	Textbook: Chapter 7 UM Learn: Unit 7	Assignment 5 <b>DUE DATE: Oct 22</b>
<b>Week: 7</b> <b>Dates: Oct 22 - 28</b>	Unit 8: Chemical Equations	Textbook: Chapter 8 UM Learn: Unit 8	Assignment 6 <b>DUE DATE: Oct 29</b>
<b>Online Quiz 2: Available on Sapling Learning Thurs, Oct 31, 8:00am – 11:00pm</b>			
<b>Week: 8</b> <b>Dates: Oct 29 - Nov 4</b>	Unit 9: Calculations from Chemical Equations	Textbook: Chapter 9 UM Learn: Unit 9	Assignment 7 <b>DUE DATE: Nov 5</b>
<b>Week: 9</b> <b>Dates: Nov 5 - 18</b>	Unit 10: The Gaseous State of Matter	Textbook: Chapter 12 UM Learn: Unit 10	Assignment 8 <b>DUE DATE: Nov 19</b>
<b>Term Test 2: Tues, Nov 19, 6:00pm – 7:00pm</b>			
<b>Week: 10</b> <b>Dates: Nov 19 - 25</b>	Unit 11: Concentration of Solution	Textbook: Chapter 14 UM Learn: Unit 11	Assignment 9 <b>DUE DATE: Nov 26</b>
<b>Week: 11</b> <b>Dates: Nov 26 - Dec 1</b>	Unit 12: Acids, Bases and Salts	Textbook: Chapter 15 UM Learn: Unit 12	Assignment 10 <b>DUE DATE: Dec 9</b>
<b>Online Quiz 3: Available on Sapling Learning Thurs, Dec 5, 8:00am – 11:00pm</b>			
<b>Week: 12</b> <b>Dates: Dec 2 - 9</b>	Unit 13: Oxidation-Reduction	Textbook: Chapter 17 UM Learn: Unit 13	

\*This course schedule may be adjusted. For any updates, please refer to UM Learn.

## COURSE EVALUATION

Assessments	Weight (%)
Ten Online Assignments	10%
Three Online Quizzes	10%
Two Term Tests	30%
Final Exam	50%

For more detailed information on assessment, please read below.

## ONLINE QUIZ INSTRUCTIONS

Online quizzes will be made available on Sapling Learning on the following days and times:

- Online Quiz 1: Thurs, Oct 3, 8:00am – 11:00pm
- Online Quiz 2: Thurs, Oct 31, 8:00am – 11:00pm
- Online Quiz 3: Thurs, Dec 5, 8:00am – 11:00pm

Online quizzes are effectively a timed assignment, with no hints or feedback. Each quiz will have a time limit of one hour. You can start the quiz at any time during the above times; to get the full hour you will need to start before 10:00pm. More information will be provided ahead of each quiz in Course Announcements on UM Learn.

## TERM TEST INSTRUCTIONS

Students are required to come to the Fort Garry Campus to write the term tests at the following times:

- Term test 1: Thurs, Oct 17, 6:00pm – 7:00pm
- Term test 2: Tues, Nov 19, 6:00pm – 7:00pm

The test will be one hour long and will be invigilated. You will need to bring pens, calculator, and student identification. If you have a time conflict or live a significant distance outside Winnipeg, you must contact the instructor no less than a week before the test. If you are unable to write a test because of illness or other emergency, you must contact the instructor within 24 hours of the test. If an alternate arrangement cannot be made, 15% for the term test will be added to the value of the final exam. You will be assigned a grade of zero for an unexcused absence. More information will be provided ahead of each term test in Course Announcements on UM Learn.

## FINAL EXAMINATION

Students are required to come to the Fort Garry Campus to write the final examination. The final exam will be three hours. The exam time and place will be determined and posted by the Registrar's Office. You will need to bring pens, calculator, and student identification. More information will be provided before the end of the term in Course Announcements on UM Learn.

## NOTICE REGARDING COLLECTION, USE, AND DISCLOSURE OF PERSONAL INFORMATION BY THE UNIVERSITY

Your personal information is being collected under the authority of The University of Manitoba Act. It will be used for the purposes of grading papers and providing feedback to students. Personal information will not be used or disclosed for other purposes, unless permitted by The Freedom of Information and Protection of Privacy Act (FIPPA). The University of Manitoba has taken steps to ensure that its agreement with Crowdmark, Inc. for services provided by the Crowdmark application is in compliance with FIPPA. Please be aware that information held by Crowdmark Inc. may be transmitted to and stored on servers outside of the University of Manitoba, or Canada. The University of Manitoba cannot and does not guarantee protection against the possible disclosure of your data including, without limitation, against possible secret disclosures of data to a foreign authority in accordance with the laws of another jurisdiction. If you have any questions about the collection of personal information, contact the Access and Privacy Office (tel. 204-474-9462), The University of Manitoba, 233 Elizabeth Dafoe Library, Winnipeg, Manitoba, Canada, R3T 2N2.

## GRADING SCALE

Letter Grade	Percentage
P (pass)	70% - 100%
F (fail)	Less than 70%

## GRADING DESCRIPTION

The final grade is either **PASS** or **FAIL**. A Passing Final Mark **MUST be 70% or higher**. In the event that a failing grade is obtained, NO other means (e.g., writing an essay) will be accepted to make a student pass the course.

## STUDENT EXPECTATIONS

*CSKL 0100 is a challenging course, and it is easy to fall behind. Success requires many hours of regular work throughout the term, with lots of practice beyond the assignments. You are encouraged to work with others, but remember that you will write the online quizzes, term tests, and final exam on your own. Student who succeed in CSKL 0100 are well-prepared for the first-year Chemistry courses at the UM (CHEM 1300, CHEM 1310, CHEM 1320).*

*CSKL 0100 is a high-school-equivalent course with University-level expectations. Deadlines are firm. You must set your own schedule for study and practice. If you do not understand a topic, you need to seek help. Respectful behaviour is expected in all of your interactions with students and staff.*

## INSTRUCTOR EXPECTATIONS

*Your success in CSKL 0100 is important and I will do my best to guide you. While I have taught courses at the UM for 15 years, teaching a distance education course is relatively new for me. Your feedback throughout the term is appreciated. I will communicate with the class through Course Announcements on UM Learn and through e-mail. Early in the term I will post a survey for students to fill out to determine how best to hold office hours. Despite the distance education format, I will try to foster a community atmosphere in this course.*

## **NETIQUETTE**

As a participant in this course, you are expected to contribute regularly to the class discussions and follow the basic rules of netiquette, i.e., principles of common courtesy and respect for other colleagues taking this course:

1. Your presence should be visible in all units as they happen; respond to the main post and/or at least one peer.
2. Ensure your contribution is polite and supportive to drive the discussion along in a positive way.
3. Include questions and links to resources to stimulate the discussion.
4. Return to the discussion throughout the week to respond to comments and continue the conversation.
5. Be sure to dig deeply into the subject matter and to challenge your colleagues in the discussion.
6. Each post should make one point or relate to one topic; signal the central idea of your post by including a proper subject line for your post.
7. Limit your posts to approximately 150 words.

## **ATTENDANCE AND PARTICIPATION**

Active and ongoing participation is integral to success in this course. It is the responsibility of the student to log into the UM Learn course site regularly, read all assigned materials, and complete learning tasks as assigned.

## **VOLUNTARY WITHDRAWAL/REFUNDS**

Any student contemplating withdrawing from a course is encouraged first to contact the program coordinator for advice and suggestions on how to continue with the course and/or program. A refund/withdrawal schedule can be found at: <http://extended.cc.umanitoba.ca/student-services/voluntary-withdrawal-vw-refund-dates/>.

## **CLASS COMMUNICATION**

Students are required to obtain and use a University of Manitoba email account for all communication with the University. All communication must comply with the Electronic Communication with Students Policy: [http://umanitoba.ca/admin/governance/governing\\_documents/community/electronic\\_communication\\_with\\_students\\_policy.html](http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html).

## **GRADING AND APPEALS REGULATIONS**

### **MISSED or DEFERRED EXAMS and TESTS**

Approval of deferred tests, or quizzes written during the regular lecture period are at the discretion of the Instructor. All requests must be made in writing (email) to the Instructor within 24 hours of the original test date. If you have discussed your situation with the Instructor of the course and feel that you are not being treated fairly, you can contact the Program Coordinator to seek assistance. The decision made by the Area Director regarding your request for a deferral will be final.

If a student misses a final examination for medical, compassionate or religious reasons, they may be granted a deferred examination. Applications must be filed within 48 hours of the date of the missed examination. A medical certificate or otherwise appropriate documentation may be required. Students who miss an exam without appropriate reasons will be given a zero. For information related to required documentation and the application process for deferral of final exams or final courses assessments please contact your Program Coordinator.

Please note:

- Students must remain available until all exam and test obligations have been fulfilled.
- Deferred exams are only granted based on medical or compassionate reasons with supporting documentation.
- All documentation is subject to confirmation. Falsification or fabrication of documentation will result in disciplinary action.
- Travel plans are not an acceptable reason to miss examinations.
- Deferring an exam is a privilege and may not always be granted.

## **FINAL EXAMINATION SCRIPTS**

You have the right to access your final examination scripts. If you have questions about your grade, speak with your Instructor. If you are not satisfied with the outcome, contact your Program Coordinator.

## **FINAL GRADES**

For final grades, please go to [Aurora Student](#). Final grades are normally posted within two weeks of course completion.

## **APPEAL PROCEDURE**

If you have questions about your grades, talk to your Instructor. There is a process for term work and final grade appeals. Students have the right to appeal matters related to Academic (such as final grades, term work), Admissions, and Disciplinary decisions. Please consult with the Program Coordinator for more details on the process.

Students are encouraged to seek advice and or representation from Student Advocacy. For more information, please refer to: <http://umanitoba.ca/student/advocacy/>.



## GENERAL ACADEMIC REGULATIONS

### ACADEMIC INTEGRITY

Academic integrity is a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage. Plagiarism or any other form of misrepresentation or cheating in examinations, term tests or academic work, including examination impersonation, is subject to serious academic penalty (e.g., suspension or expulsion from the faculty or university). For complete information on the University of Manitoba's policies on academic integrity, please refer to the Student Quick Start Guide and: <http://umanitoba.ca/student/academicintegrity/>.

**For more information, please refer**

**to:** [http://umanitoba.ca/student/resource/student\\_advocacy/academicintegrity/students/](http://umanitoba.ca/student/resource/student_advocacy/academicintegrity/students/)

If you have questions, or require clarification regarding rules and how to apply them to your academic work, please consult your Instructor or Program Coordinator.

Students who receive an allegation of academic misconduct will be subject to disciplinary action in accordance with University and Extended Education policies and procedures. This discipline ranges from an automatic grade of zero (0) on an assignment, quiz, or examination, failure in the course, to expulsion from the University.

Students who wish to appeal an allegation of academic misconduct have the right to seek advice and representation from the Student Advocacy Office. Please contact the Program Coordinator for further information or assistance.

### COPYRIGHT

All students are required to respect copyright as per Canada's *Copyright Act*. Any copyrighted content in this course is appropriately acknowledged and is copied in accordance with copyright laws and university guidelines. Copyrighted works are made available for private study and research and must not be distributed in any format without permission.

Do not upload copyrighted works to UM Learn, unless an exception to the *Copyright Act* applies or written permission has been confirmed. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit <http://umanitoba.ca/copyright> for more information.

### INTELLECTUAL PROPERTY

For information about rights and responsibilities regarding **Intellectual Property** view the policy [http://umanitoba.ca/admin/governance/governing\\_documents/community/235.html](http://umanitoba.ca/admin/governance/governing_documents/community/235.html)

## NON-ACADEMIC MISCONDUCT

The University of Manitoba is committed to creating a safe, respectful and civil working and learning environment. It is your responsibility as a student to familiarize yourself with the regulations that the University has in place. For more information, please refer to:

[http://umanitoba.ca/student/resource/student\\_advocacy/student\\_conduct.html#Conduct\\_policies](http://umanitoba.ca/student/resource/student_advocacy/student_conduct.html#Conduct_policies)

Non-academic misconduct will result in disciplinary action. If you disagree with a discipline decision, it is your right to appeal. To assist with the appeals process, please contact the Program Coordinator.

## RESPECTFUL WORK AND LEARNING ENVIRONMENT

The University of Manitoba does not condone behaviour that is likely to undermine the dignity, self-esteem or productivity of any of its members and prohibits any form of discrimination or harassment whether it occurs on University property or in conjunction with University-related activities. Therefore, the University of Manitoba is committed to an inclusive and respectful work and learning environment, free from:

- discrimination or harassment as prohibited in the Manitoba Human Rights Code;
- sexual harassment; and
- personal harassment.

The University does acknowledge the legitimate right and responsibility of academic staff members to correct inappropriate student behaviour, insist on order in the classroom and evict, as necessary, those who disrupt order in the classroom.

- [Respectful Work and Learning Environment Policy](#)
- [Student Discipline Bylaw](#)

## SEXUAL ASSAULT

If you experience **sexual assault**, or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at:

[http://umanitoba.ca/admin/governance/governing\\_documents/community/230.html](http://umanitoba.ca/admin/governance/governing_documents/community/230.html).

More information and resources can be found by reviewing the Sexual Violence Support & Education information found at <http://umanitoba.ca/student/sexual-assault/>.

## VIOLENT OR THREATENING BEHAVIOUR

If you experience violent or threatening behaviour, or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Violent or Threatening Behaviour** policy may be found at:

[http://umanitoba.ca/admin/governance/governing\\_documents/community/669.html](http://umanitoba.ca/admin/governance/governing_documents/community/669.html)

## **UNIVERSITY SUPPORT OFFICES AND POLICIES**

### **ACADEMIC LEARNING CENTRE**

The Academic Learning Centre (ALC) offers one-to-one and group programming that enhances students' academic learning, writing and research skills.

The ALC offers supports to **all** University of Manitoba students. Students are invited to:

- Use resources from the ALC webpage
- Make a one-to-one appointment for writing, study skills, or content support
- Attend workshops

*Academic Learning Centre:* <http://umanitoba.ca/student/academiclearning/>

205 Tier Building

Email: [academic\\_learning@umanitoba.ca](mailto:academic_learning@umanitoba.ca)

Phone: (204) 480-1481

### **STUDENT ACCESSIBILITY SERVICES**

Student Accessibility Services (SAS) provides support and advocacy for students with disabilities of all kinds: hearing, learning, injury-related, mental health, medical, physical or visual. Students with temporary disabilities such as sprains and breaks are also eligible to use the services of SAS. SAS acts as a liaison between students and the faculty and staff of the University of Manitoba as well as support agencies within the province of Manitoba.

*Student Accessibility Services:* <http://umanitoba.ca/student/saa/accessibility/>

520 University Centre

Phone: (204) 474-7423

Email: [Student\\_accessibility@umanitoba.ca](mailto:Student_accessibility@umanitoba.ca)

**For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.**

### **STUDENT COUNSELLING CENTRE (SCC)**

Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling.

*Student Counselling Centre:* <http://umanitoba.ca/student/counselling/index.html>

474 University Centre or S207 Medical Services

Phone: (204) 474-8592

### **STUDENT SUPPORT CASE MANAGEMENT (SSCM)**

Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.

*Student Support Intake Assistant:* <http://umanitoba.ca/student/case-manager/index.html>

520 University Centre

Phone: (204) 474-7423

### **UNIVERSITY HEALTH SERVICE (UHS)**

Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.

University Health Service: <http://umanitoba.ca/student/health/>

104 University Centre, Fort Garry Campus

Phone: (204) 474-8411 (Business hours or after hours/urgent calls)

### **HEALTH AND WELLNESS**

Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

Health and Wellness Educator <http://umanitoba.ca/student/health-wellness/welcome.html>

469 University Centre

Phone: (204) 295-9032

Email: [Katie.Kutryk@umanitoba.ca](mailto:Katie.Kutryk@umanitoba.ca)

### **LIVE WELL @ UofM**

For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM website: <http://umanitoba.ca/student/livewell/index.html>

### **YOUR RIGHTS AND RESPONSIBILITIES**

As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The Academic Calendar <http://umanitoba.ca/student/records/academiccalendar.html> is one important source of information. View the sections *University Policies and Procedures* and *General Academic Regulations*.

Contact your Program Coordinator within Extended Education for questions about your academic program and regulations.

### **STUDENT ADVOCACY**

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns. <http://umanitoba.ca/student/advocacy/>

520 University Centre

204 474 7423

[student\\_advocacy@umanitoba.ca](mailto:student_advocacy@umanitoba.ca)

***Please retain the Course Outline for future credit requests.***

## TRADITIONAL TERRITORIES ACKNOWLEDGEMENT

The University of Manitoba recognizes the traditional territories on which our campuses are located. This acknowledgement, linked below, states our commitment to creating a learning environment that welcomes Indigenous students, staff, faculty, and guests.

[http://umanitoba.ca/admin/indigenous\\_connect/5728.html](http://umanitoba.ca/admin/indigenous_connect/5728.html)

## ACKNOWLEDGEMENTS

<b>Content Provider:</b>	<b>Elena Smirnova, PhD</b> Chemistry Department Faculty of Sciences The University of Manitoba
<p>Dr. Elena Smirnova earned her Ph.D. at the Moscow State University (MSU), a premier university in Russia. She subsequently taught Analytical Chemistry and Instrumental Methods courses for students at the Faculties of Chemistry, Medicine, Biology, Geology, and Soil Science at the same university.</p> <p>Dr. Smirnova also performed research in the fields of Kinetic Methods of Analysis (MSU) and Clinical Pharmacology (the State Cardiology Centre, Moscow). Dr. Smirnova joined the Chemistry Department at the University of Manitoba in the summer of 1998. Her primary focus is teaching first- and second-year courses and supervising the laboratories for the second-year courses.</p> <p>Dr. Smirnova received numerous teaching awards, the most prestigious of which is the Olive Beatrice Stanton Award for Teaching Excellence (Summer 2010).</p>	
<b>Instructional Designer:</b>	<b>Cheikh Ould Moulaye, PhD</b> Distance and Online Education The University of Manitoba
<b>Media Specialist:</b>	<b>Tara Smilinski</b>

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