



Leonardo da Vinci. *The Vitruvian Man* (drawing circa 1490)  
Gallerie dell'Accademia, in Venice, Italy.

Course covers current knowledge of cellular and molecular biology: cell chemistry, transcription, translation, cell architecture, metabolism, signal transduction pathways, DNA repair and genome stability, cell division, and the cell cycle.

Version: 08/17/2021  
This syllabus is **subject to change**

Course syllabus\*, contemO



**Instructional methods:** This course will be taught through a combination of lecture videos, problem solving, and reading scientific publications.

**Format of the course:** The course contains 10 modules, covering 20 chapters of the textbook.

Lectures and videos will be posted online according to the table

each exam might be in the form of take-home questions in which you apply the knowledge you learn in class to solve problems.

**(2) Home work assignments (100):** five home works assignments will be made during the course, 20 points each.

**BONUS:** to earn extra points (maximum – **25 points**) you will need to choose some exciting topic in “cell and molecular

Version: 01/05/2021  
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Week-10 Oct-25	6	Membrane Structure	Ch 11	October-30
		Transport	Ch 12	
Week-11 Nov-1	7	Metabolism	Ch 13	November-6
		Mitochondria	Ch 14	
Week-11 November-4 Exam-2 chapters 7-14				
Week-12 Nov-8	8	Protein Transport	Ch 15	November-13
		Cell Communication	Ch 16	
Week-13 Nov-15	9	Cytoskeleton	Ch 17	November-20
		Cell Division	Ch 18	
Week-14 Nov-22	10	Sexual reproduction	Ch 19	December-4
Week-15 Nov-29		Cancer	Ch 20	
Week-15 November-30 Exam-3 chapters 15-20				
FINAL EXAM December-6 chapters 1-20				

<http://uaf.edu/usa/student-resources/conduct/#condu>

10. disruptive or obstructive actions;
  11. mistreatment of animals;
  12. misuse of firearms, explosives, weapons, dangerous devices, or dangerous chemicals;
  13. failure to comply with university directives;
  14. misuse of alcohol;
  15. misuse of drugs or other intoxicants;
  16. violation of regents' policy, university regulation, rules, or procedures; or
  17. any other actions that result in unreasonable interference with the learning environment or the rights of others.
- C. Examples of actions that constitute these prohibitions will be described in the university regulation and MAU rules and procedures.
- D. This policy and university regulation and MAU rules and procedures are not intended to define prohibited conduct in exhaustive terms, but rather to set forth examples to serve as guidelines for acceptable and unacceptable behavior.

The university has established procedures for enforcing the UA code of conduct. Each student at the university shall be afforded due process in all disciplinary matters. For a complete guide to these procedures, please refer to [Board of Regents Policy and University Regulation 09.02](#) (PDF).