

- f) identify and manually trace adversarial search algorithms such as minimax and alpha-beta pruning
 - g) design heuristic evaluators for a given adversarial search space
3. With respect to learning:
- a) identify and explain general concepts of learning such as function fitting, attributes and classes, bias and over fitting
 - b) describe and manually trace the perceptron learning algorithm for perceptrons with a limited number of inputs and outputs
 - c) explain the role of an activation function in hidden layer networks
 - d) explain how the back propagation training algorithm works in hidden layer networks
 - e) represent inductive concept learning via decision trees
 - f) apply the information gain method in choosing the "best" attribute of a node and manually trace the construction of a decision tree via the ID-3 algorithm
 - g) construct a Bayesian network to model a problem with probabilistic information
 - h) represent and answer queries in uncertain circumstances in terms of their conditional probabilities
 - i) explain and manually trace the Naïve-Bayes algorithm
4. With respect to ONE selected "big application" area of AI such as Reasoning and Theorem Proving, Natural Language Processing, Computer Vision, Robotics, Multiagent Systems, etc:
- a) identify and describe the motivation, terminology, foundations and key concepts in the selected area
 - b) describe and manually trace the essential algorithms in the selected area
 - c) use available libraries and software to test the key algorithms and extend them to specific application projects in the selected area

Course Grading Policy

Your final grade for this course will be based on three components, namely exams, assignments, and review problems. Your overall numerical grade for the course will be computed as the weighted sum of the component grades using the following weights:

Component	Weight
Exams (3)	55%
Assignments	25%
Homework	20%

Tentative Exam Dates are as follows:

- **Exam 1 - Thursday, 3/02**
- **Exam 2 - Thursday, 4/06**
- **Exam 3 - Thursday, 5/11**

Your letter grade for the course will be completed as follows:

Numerical Score	Grade	Numerical Score	Grade
>=92	A	72-78	C
90-92	A-	70-72	C-
88-90	B+	68-70	D+
82-88	B	62-68	D

80-82	B-	60-62	D-
78-80	C+	<60	F

While this overall grading scheme is fixed, I will be happy to discuss any issue you may have with individual grades. If you notice a mistake or have a question regarding a specific grade, please come and talk to me *as soon as possible*. Do not wait until the end of the semester to bring up grading issues.

Assignment/Homework Deadlines

Each homework will come with a deadline (day and time) by which it must be submitted. **Late homework submissions will NOT be accepted.**

Each assignment comes with a deadline (day and time) by which it must be submitted. You are allotted *three* assignment credit days you can use through the semester. A credit day is exactly 24 hours or less. You can use unused credit days to submit an assignment after its deadline, without penalty. Any assignment submitted after the deadline, plus any credit days you have unused, will receive a zero.

For example, if you have 2 unused credit days available and an assignment is due on Tuesday at 5:00PM, you can submit it anytime by exactly Thursday at 5:00PM without penalty. Do note that if you submit your assignment on Thursday at 5:01PM, you will be penalized 100% of the score of the assignment and thus receive a zero! Note also that if you submit your assignment on Wednesday at 5:01PM, you will be charged two credit days (but no penalty, obviously).

Attendance Policy:

I do not require attendance for this course, but I do encourage you to attend and hope it will be beneficial to you. When attending class, please do come prepared for, and participate actively, in it. Material may be discussed during the lectures that is not available on Canvas. If you miss class, it is your responsibility to make sure you catch up on anything you may have missed.

Extensions and Makeups:

Extensions on deadlines may be granted at the discretion of the instructor if you provide a valid justification (in the form of a written excuse from a medical doctor or the Dean of Students Office) **before** the due date.

Collaborating versus Cheating:

Unless otherwise stated in the assignment or project, all submissions must be entirely your own work. While it is acceptable to discuss the homework and assignments at a high level (for example, at the design level) with others, you must submit your own work. **You may not “borrow” any piece of code or design of any length from someone else, the internet, or any other source, unless you can live with a zero and the other potential academic sanctions of cheating** (see [UWO Student Discipline Code 2007](#), Chapter UWS 14).

Accommodations:

The University of Wisconsin Oshkosh supports the right of all enrolled students to a full and equal educational opportunity. It is the University’s policy to provide reasonable accommodations to students who have documented disabilities that may affect their ability to participate in course activities or to meet course requirements.

Students are expected to inform instructors of the need for accommodations as soon as possible by presenting an Accommodation Plan from either the Accessibility Center, Project Success, or both. Reasonable accommodations for students with disabilities is a shared instructor and student responsibility.

The Accessibility Center is part of the Dean of Students Office and is located in 125 Dempsey Hall. For more information, email accessibilitycenter@uwosh.edu, call 920-424-3100, or visit the Accessibility Center Website.

Statement Regarding Diversity, Equity & Inclusion:

Diversity drives innovation, creativity, and progress. At the University of Wisconsin Oshkosh, the culture, identities, life experiences, unique abilities, and talents of every individual contribute to the foundation of our success. Creating and maintaining an inclusive and equitable environment is of paramount importance to us. This pursuit prepares all of us to be global citizens who will contribute to the betterment of the world. We are committed to a university culture that provides everyone with the opportunity to thrive.

Required Disclosure Statement:

Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990:

<https://uwosh.edu/financialaid/consumer-information/>