

# Course Syllabus

Course	CISC 7026 Fall 2025
Time	19:00-22:00, Fridays
Location	Room E6-1102C
Description	This course introduces the theory and application of deep neural networks
Instructor	Steven Morad <smorad at um.edu.mo>
Office Hours	14:00-16:00 Friday
Grading	<ul style="list-style-type: none"> <li>• Assignments: 30%</li> <li>• Exams: 30%</li> <li>• Final Project: 30%</li> <li>• Participation: 10%</li> </ul>
Cheating Policy	Any students caught cheating will fail the entire course
Exam Policy	Lowest exam score dropped
Late Work Policy	<ul style="list-style-type: none"> <li>• -25% 0-1 days late</li> <li>• -50% 1-2 days late</li> <li>• -75% 2-3 days late</li> <li>• -100% 3+ days late</li> </ul>
Prerequisites	<ul style="list-style-type: none"> <li>• Linear Algebra</li> <li>• Multivariable Calculus</li> <li>• Programming in Python</li> </ul>
Preliminary Lecture Schedule	<ul style="list-style-type: none"> <li>• Week 1 (08.22): Course Introduction</li> <li>• Week 2 (08.29): Linear Regression (D2L 3.1, 3.6)</li> <li>• Week 3 (09.05): Neural Networks (D2L 5.1, 5.2, 6.1)</li> <li>• Week 4 (09.12): Backpropagation and Optimization (D2L 5.3, 12.1, 12.3-12.5)</li> <li>• Week 5 (09.19): Exam 1</li> <li>• Week 6 (09.26): Classification (D2L 4.1, 4.2, 4.4)</li> <li>• Week 7 (10.03): Training Tricks (D2L 5.1-5.5, 6.1-6.3, 12.1-12.10)</li> <li>• Week 8 (10.10): Convolutional Neural Networks (D2L 7)</li> <li>• Week 9 (10.17): Exam 2</li> <li>• Week 10 (10.24): Recurrent Neural Networks (D2L 9-10)</li> <li>• Week 11 (10.31): Autoencoders and Generative Models</li> <li>• Week 12 (11.07): Diffusion Models</li> <li>• Week 13 (11.14): Attention and Transformers (D2L 11.1-11.7)</li> <li>• Week 14 (11.21): Exam 3</li> <li>• Week 15 (11.28): Foundation Models (D2L 11.8-11.9)</li> </ul>
Preliminary Assignment Schedule	<ul style="list-style-type: none"> <li>• Week 1-2 (08.22 - 08.29): (Optional) Array Programming</li> <li>• Week 2-4 (08.29 - 09.12): Linear Regression</li> <li>• Week 4-6 (09.12 - 09.26): Neural Networks and Backpropagation</li> <li>• Week 6-8 (09.26 - 10.10): MLP Regression</li> <li>• Week 8-10 (10.10 - 10.24): Convolutional MNIST Classification</li> <li>• Week 10-12 (10.24 - 11.07): RNN Stock Market Prediction</li> <li>• Week 11-12 (10.31 - 11.07): Final Project Plan</li> <li>• Week 12-16 (11.07 - 12.05): Final Project</li> </ul>