

LIVING MACHINES

Toward your dreams

LIVING MACHINES

Do you want to **apply engineering principles and concepts** to problems in the Life and Medical Sciences through various **biotechnology innovations**?

In the **New Engineering Education Transformation (NEET) Living Machines (LM) thread**, you will have the opportunity to **work on disruptive research areas**, united by a theme of improving our understanding of and developing therapies for human disease, such as:

**Synthetic Biology and
BioManufacturing**

**Biotechnology for
Environmental Engineering**

**Microfluidic Device
Engineering**

**Tissue
Engineering**

**Immune, Cancer, and Infection
Engineering**

**Computational
Biology**

*NEET is a **3-year, experiential learning certificate program** (sophomore through senior year) that you complete in the usual four years along with your major. All NEET scholars gain **exclusive access** to the **NEET Scholars Collaboration Space (3-001)**.*



LM LEAD INSTRUCTOR

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THREAD REQUIREMENTS

20.051 Introduction to Living Machines (6 units)

Choose two subjects (one underlined, one italic) from one of six Living Machines tracks:

Synthetic Biology and BioManufacturing

Choose one: 10.28 (10.28 A&B), 10.29, 20.129/6.4880, or 20.109

Choose one: *2.180/6.027*, *10.321*, *10.345*, *20.305/6.580*, *7.36*, *7.38*, *7.46*, *10.03/7.458*, or *10.442*

Biotechnology for Environmental Engineering

Choose one: 10.28 (10.28 A&B), 10.29, 20.129/6.129, 20.109, 20.106/1.084, 7.21, 12.004, or 7.30/1.018/12.031

Choose one: *2.180*, *20.305/6.580*, *1.089*, *1.063*, *1.088*, *7.26*, or *12.007*

Immune, Cancer and Infection Engineering

Choose one: 20.230/7.23, 1.088, 7.21, or 20.106/1.084

Choose one: *20.365*, *7.24*, *7.26*, *1.063*, *7.36*, or *7.371*

Tissue Engineering

Choose one: 2.793/20.230/6.4830, or 20.310/2.797/6.4840/3.053

Choose one: *20.375*, *20.363/3.055*, *7.46*, *6.4820/2.792/HST.542*, or *2.787/HST.535*

Microfluidic Device Engineering

Choose one: 2.793/20.330/6.4830, 10.301, 2.005, 2.674, 1.060, 1.066/8.292/12.330, or 1.063

Choose one: *2.676*, *20.334*, or *6.2600/3.155*

Computational Biology

Choose one: 20.260, 6.3900, or 20.390/6.8711

Choose one: *20.320*, *2.180*, or *20.334*

Research Immersion

Internship, Two-semester UROP + 20.054, Thesis or iGEM

Intellectual Diversity Requirement

A core subject from outside of your major

Attend Living Machines Activities and Talks

LM FOUNDING FACULTY LEAD

Professor Linda Griffith

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