Centre For Print Research

Sculpted by the Machine

An Introduction to Creative CNC Programming

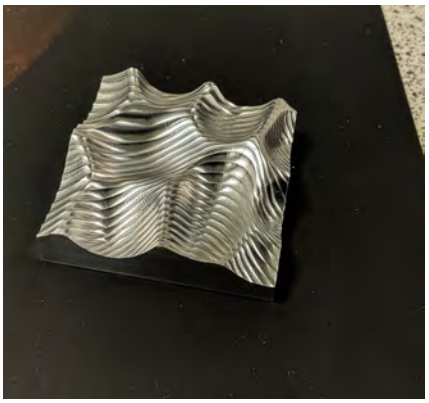
Course Information - 14th -16th May 2024

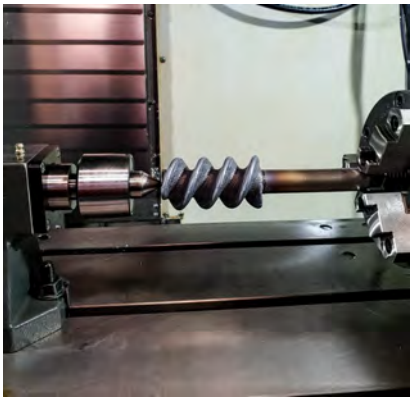
UWE Bristol | University of the West of England

Sculpted by the Machine
An Introduction to Creative CNC Programming

Led by: Michael White
Course Duration: 3 Days, 10am to 4pm
Dates: 14th - 16th May 2024
Price: £359.00 full price / £288.00 concessionary price

The course price includes all materials and PPE.





ABOUT THE COURSE

This course is an introduction to custom and creative programming of a 3 axis CNC milling machine/router. Throughout the course, we will explore the essential tools, encompassing both machines and cutters, explore the intricacies of the necessary software, and demystify the G-code that governs these machines. We will explore a non-traditional workflow that enables those with even basic skill levels in digital fabrication to design for the process in an out-of-the-box wy.

Emphasising a holistic approach, this course uniquely integrates analogue techniques with digital precision, guiding participants to craft a final object that embodies the synergy between traditional craftsmanship and cutting-edge CNC technology.
Unlike traditional courses that focus on industry standards for machining engineered objects, our approach encourages play and collaboration with the machine.

In this course, participants will begin by sculpting physical objects in clay, (or bring in pre-existing objects). The objects will be scanned with a 3D scanner to digitise them. Participants will then design some toolpaths in illustrator to then project onto their form to create the cutting paths, which we will convert into g-code and run on the CNC machine.

WHO IS IT FOR?

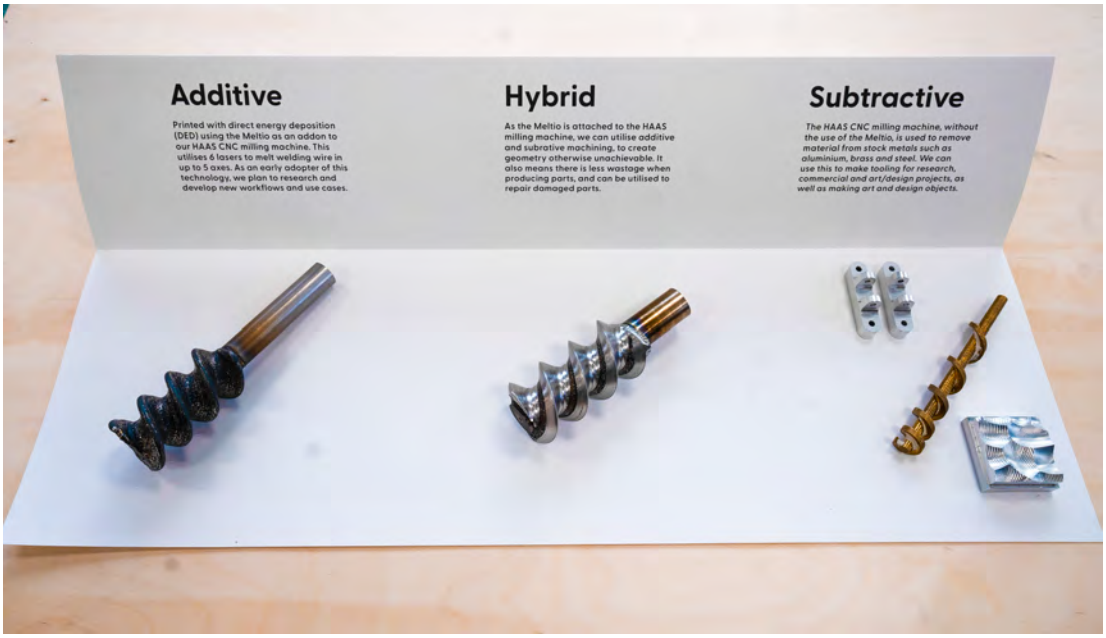
This course is designed for creative educators (academic and technical) and practitioners in art, design, and architecture.

COURSE STRUCTURE

Day 1 - After a quick health and safety briefing, participants will be introduced to the processes: discussion about milling, cutters, 3 axis machining vs multi axis, discussing the terminology (end mill, router bit, toolpaths, spindle speed, feedrate etc.) They will then start sculpting in clay/ plasticine, we will then 3D scanning these objects.

Day 2 - Participants will design vector paths in illustrator. We will discuss what this means for the end result (stepovers). We will then begin machining the objects. Some students may want to have a go at making another object.

Day 3 - Machine remaining objects. Discussion, troubleshooting and final comments.



COURSE TUTOR

About: Michel White

Mike, a passionate enthusiast, found inspiration in the captivating world of CNC machines. Driven by a desire for fun and intellectual curiosity, he embarked on a journey to explore the creative potential these machines offer. With a history in more traditional woodworking techniques, Mike blends non-digital methods with cutting-edge CNC technology. Now, he is excited to share this unique fusion of craftsmanship in the upcoming short course, where participants can discover the joy and fascination of creative CNC applications and witness the harmonious integration of digital precision and traditional artistry.

WHAT DO I GET OUT OF IT?

This comprehensive course offers participants the foundational knowledge needed to delve creatively into the realm of CNC technologies. By the course's conclusion, students will not only have a solid understanding of the tools and technologies involved but will also possess the skills to generate custom programs for CNC machines, fostering a newfound capability for creative expression.

HOW IS THE COURSE DELIVERED?

This will be a physical course, delivered in person at our UWE Frenchay campus.

The course price includes all materials and PPE. Please sign up early to secure your place.

BOOK HERE: https://store.uwe.ac.uk/short-courses/centre-for-print-research/cpd-courses

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