



Understanding and Nurturing an Integrated
Vision for Education in RSE and HPC

UNIVERSE-HPC: Understanding and Nurturing an Integrated Vision for Education in RSE and HPC

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Project Partners:

- University of Edinburgh
- University of Oxford
- University of Southampton
- Imperial College London

Funded under the **UK ExCALIBUR programme**
<https://excalibur.ac.uk>

- **Understand community training requirements**
- **Develop a curriculum framework**
- **Build a diverse and inclusive training community**
- **Support trainers and learners**
- **Seminars, workshops and training pilots**
- <https://www.universe-hpc.ac.uk> / info@universe-hpc.ac.uk

Competencies and Skills

Learning Pathways

Course Development
+ Delivery

Community Support +
Contributions

Understand

Develop

Deliver

Support

Equity, Diversity and Inclusion (EDI)

Gutenberg Course Management & Course Pilots

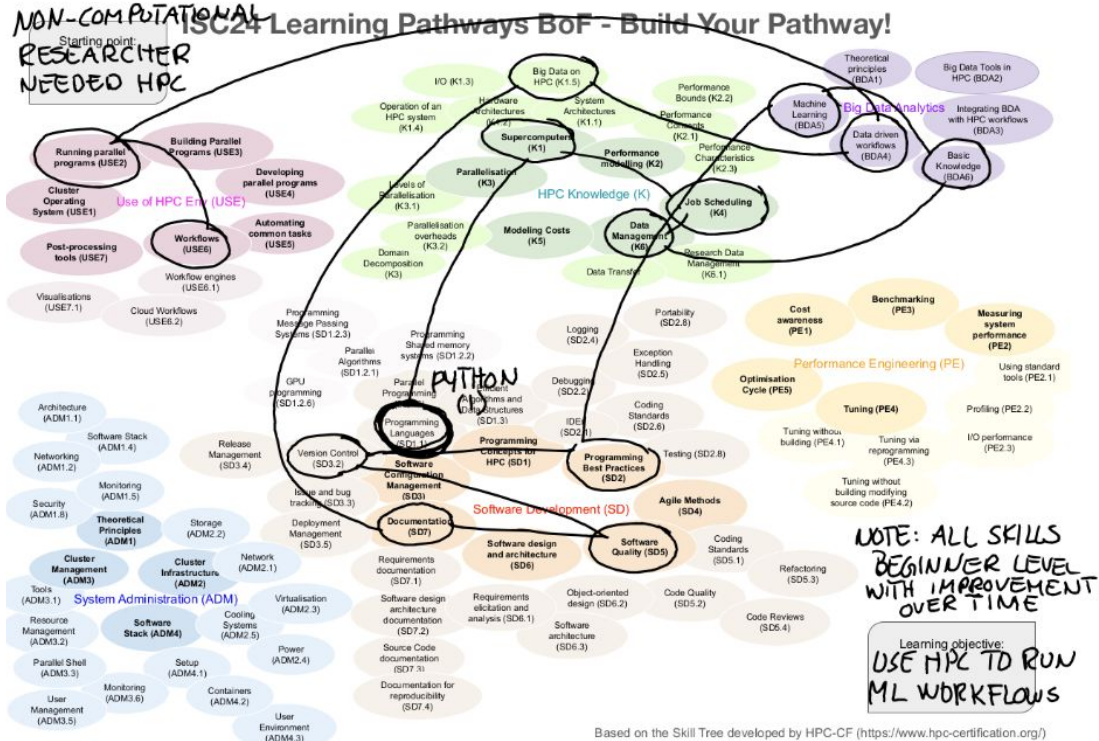
- **Gutenberg** is an open-source web-based course management platform for rendering training material, hosting course events and providing student tracking & interaction
 - GitHub repo: <https://github.com/OxfordRSE/gutenberg>
 - Oxford deployment: <https://train.rse.ox.ac.uk/>
 - Southampton deployment: <https://www.uhpc-training.co.uk/>
 - Includes a set of provided open source training material from a range of community sources
 - <https://github.com/UNIVERSE-HPC/course-material>
 - Groups can add their own training material and host their own deployment of the platform
- A set of **course pilots** run, led by University of Southampton
 - Focused so far on foundational HPC and OpenMP/MPI
 - Development of pilot operations guide - support established trainers + those piloting new courses
 - Mixing instructor-led training alongside guided self-learning

Learning Pathways and Personas

Work to investigate and understanding
learning pathways

An example of a worksheet used to
understand perspectives of learning
pathways at a session led by Weronika
Filingier, Jeremy Cohen, et al. at ISC
2024

Similar activities being run at other
conferences including PEARC24 and
SC24



Events and Activities

- Running a range of different events to support the learner and trainer communities we're building:
 - **Hackathons** to support the further development of Gutenberg
 - **Project seminar series** - sessions hosted by each partner site
 - **Workshop sessions** and **papers/talks** at various conferences - inc. ISC, SuperComputing, PEARC, Durham HPC Days
- **Byte-sized RSE** sessions providing quick access to key computing skills
 - Two series of 8 sessions completed, third series of 6 sessions starts soon
 - Companion podcast developed with Code for Thought for each session



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Thank you

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Contact: info@universe-hpc.ac.uk