

PhD in Science, Technology and Arts

Study Plan

The curricular part of the Doctoral Programme in Science, Technology and Arts offers the students the possibility of exploring the prominent topics related to the development of artistic and technological research.

All subjects that present a practical component take advantage of the School of Arts' equipment and laboratorial infrastructure (computers, audiovisual gear, studios, fabrication workshops), thus, students are encouraged to develop and experiment with distinct creation and implementation strategies and techniques.

Some of the topics covered in the curricular stage are:

- Art, Culture and Society
- Cinema
- Procedural Art
- Sonic Arts
- Science and technology and Art
- Animation
- Human-Machine Interfaces
- Contemporary Music
- Curatorship
- Moving Image
- Digital fabrication
- Instrument Design
- Art criticism and critical studies
- Digital restoration
- Artificial Intelligence
- Performance

| | |
|----------|------------|
| 120 ECTS | 60 ECTS |
| Thesis | Curricular |

| Curricular Stage | | | | |
|---------------------------------------|-------------------|------|-------|------------------|
| UC | Scientific Domain | ECTS | Hours | Type |
| Research Methodology | CTA | 6 | 24 | Theory |
| Perception and Cognition | CTA | 6 | 24 | Theory |
| Interactive Art | AI | 8 | 30 | Lab practice |
| History and Aesthetics of Interaction | AI | 6 | 24 | Teheory/Practice |
| Computer Programming | AI | 6 | 24 | Teheory/Practice |
| Interface Design | AI | 8 | 30 | Lab practice |
| Virtual and Augmented Reality | AI | 6 | 24 | Teheory/Practice |
| Computer Music | IM | 8 | 30 | Lab practice |
| Audio Synthesis and Processing | IM | 6 | 24 | Teheory/Practice |
| CTA = Science, Technology and Arts | | | | |
| IM = Computer Music | | | | |
| AI = Interactive Art | | | | |

| Curricular Calendar | | |
|---------------------------------------|----------------------------|----------------------------|
| nov-19 | mar-20 | Mai e Junho/2020 |
| Monday to Friday 18hs-22hs | Monday to Friday 18hs-22hs | Monday to Friday 18hs-22hs |
| Saturdays 10hs - 18hs | Saturdays 10hs - 18hs | Saturdays 10hs - 18hs |
| Classes from Stretch I | Classes from Stretch II | Classes from Stretch III |
| *detailed UC schedule may be modified | | |

| Thesis Development | | |
|--------------------|-------------------|------|
| UC | Scientific Domain | ECTS |
| | | |

| | | |
|------------|-----|----|
| Thesis I | CTA | 30 |
| Thesis II | CTA | 30 |
| Thesis III | CTA | 30 |
| Thesis IV | CTA | 30 |

| Stretch I - Nov/2019 | | | | | | |
|------------------------|--------------------------|---------------------------------------|--------------------------|---------------------------------------|----------------------|-----------------|
| 1 st week | | | | | | |
| schedule | 04-nov | 05-nov | 06-nov | 07-nov | 08-nov | 09-nov |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 19 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 20 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 21 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 2 nd week | | | | | | |
| schedule | 11-nov | 12-nov | 13-nov | 14-nov | 15-nov | 16-nov |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | History and Aesthetics of Interaction | Percepção e Cognição | |
| 19 | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | History and Aesthetics of Interaction | Percepção e Cognição | |
| 20 | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | History and Aesthetics of Interaction | Percepção e Cognição | |
| 21 | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | History and Aesthetics of Interaction | Percepção e Cognição | |
| 3 rd semana | | | | | | |
| schedule | 18-nov | 19-nov | 20-nov | 21-nov | 22-nov | 23-nov |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 19 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 20 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |
| 21 | Research Methodology | History and Aesthetics of Interaction | Perception and Cognition | History and Aesthetics of Interaction | Research Methodology | |

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|-----------------------|--------------------------|--------------------------------|--------------------------|--------------------------------|----------------------|-----------------|
| | | Interaction | | Interaction | | |
| 4 th week | | | | | | |
| schedule | 25-nov | 26-nov | 27-nov | 28-nov | 29-nov | 30-nov |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Perception and Cognition | Research Methodology | Perception and Cognition | Interactive Art | Computer Music | |
| 19 | Perception and Cognition | Research Methodology | Perception and Cognition | Interactive Art | Computer Music | |
| 20 | Perception and Cognition | Research Methodology | Perception and Cognition | Interactive Art | Computer Music | |
| 21 | Perception and Cognition | Research Methodology | Perception and Cognition | Interactive Art | Computer Music | |
| Stretch II - Mar/2020 | | | | | | |
| 1 st week | | | | | | |
| schedule | 02-mar | 03-mar | 04-mar | 05-mar | 06-mar | 07-mar |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 19 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 20 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 21 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 2 nd week | | | | | | |
| schedule | 09-mar | 10-mar | 11-mar | 12-mar | 13-mar | 14-mar |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 19 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 20 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 21 | Computer Programming | Audio Synthesis and Processing | Computer Programming | Audio Synthesis and Processing | Computer Programming | |
| 3 rd week | | | | | | |
| schedule | 16-mar | 17-mar | 18-mar | 19-mar | 20-mar | 21-mar |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |

| | | | | | | |
|------------------------|-------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|------------------|
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | |
| 19 | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | |
| 20 | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | |
| 21 | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | Audio Synthesis and Processing | Virtual and Augmented Reality | |
| 4 th week | | | | | | |
| schedule | 23-mar | 24-mar | 25-mar | 26-mar | 27-mar | 28-mar |
| 10 | | | | | | Interactive Art |
| 11 | | | | | | Interactive Art |
| 12 | | | | | | Interactive Art |
| 13 | | | | | | Lunch |
| 14 | | | | | | Computer Music |
| 15 | | | | | | Computer Music |
| 16 | | | | | | Computer Music |
| 17 | | | | | | |
| 18 | Virtual and Augmented Reality | Interface Design | Virtual and Augmented Reality | Interactive Art | Virtual and Augmented Reality | |
| 19 | Virtual and Augmented Reality | Interface Design | Virtual and Augmented Reality | Interactive Art | Virtual and Augmented Reality | |
| 20 | Virtual and Augmented Reality | Interface Design | Virtual and Augmented Reality | Computer Music | Virtual and Augmented Reality | |
| 21 | Virtual and Augmented Reality | Interface Design | Virtual and Augmented Reality | Computer Music | Virtual and Augmented Reality | |
| Stretch III - Mai/2020 | | | | | | |
| 1 st week | | | | | | |
| schedule | 25-mai | 26-mai | 27-mai | 28-mai | 29-mai | 30-mai |
| 10 | | | | | | Interface Design |
| 11 | | | | | | Interface Design |
| 12 | | | | | | Interface Design |
| 13 | | | | | | Lunch |
| 14 | | | | | | Interface Design |
| 15 | | | | | | Interface Design |
| 16 | | | | | | Interface Design |
| 17 | | | | | | |
| 18 | Interface Design | Interface Design | Interface Design | Interface Design | Interface Design | |
| 19 | Interface Design | Interface Design | Interface Design | Interface Design | Interface Design | |
| 20 | Interface Design | Interface Design | Interface Design | Interface Design | Interface Design | |
| 21 | Interface Design | Interface Design | Interface Design | Interface Design | Interface Design | |

For more information, please send an email to artes@porto.ucp.pt