



## FICHA DE UNIDADE CURRICULAR

### Unidade Curricular

202499307 - Inovações em Ambientes de Ensino/Aprendizagem ao Ar Livre

### Tipo

Optativa

Ano lectivo	Curso	Ciclo de estudos	Créditos
2024/25	Doutoramento Design Doutoramento Urbanismo Doutoramento Arquitetura	3º	10.00 ECTS
Idiomas	Periodicidade	Pré requisitos	Ano Curricular / Semestre
Português	semestral		

### Área Disciplinar

Tecnologias da Arquitetura, Urbanismo e Design

### Horas de contacto (semanais)

Teóricas	Práticas	Teórico práticas	Laboratoriais	Seminários	Tutoriais	Outras	Total
0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00

### Total Horas da UC (Semestrais)

Total Horas de Contacto	Horas totais de Trabalho
28.00	75.00

### Docente responsável (nome / carga lectiva semanal)

Jorge Manuel Tavares Ribeiro

### Outros Docentes (nome / carga lectiva semanal)

Susana Maria Gouveia Rosado 1.00 horas  
Jorge Manuel Tavares Ribeiro 1.00 horas

### Objetivos de aprendizagem (conhecimentos, aptidões e competências a desenvolver pelos estudantes)

*Sensibilizar a consciência dos alunos para as vantagens do ensino/aprendizagem de crianças e jovens em ambientes ao ar livre;*

*Desenvolver conceitos de recolha de dados e de informação sobre escolas e jardins, bem como sobre os respetivos utilizadores;*  
*Conhecer princípios fundamentais de projeção de ambientes de ensino/aprendizagem;*  
*Discutir a aplicabilidade desses princípios a cada caso particular;*  
*Aplicar os princípios a cada caso particular em termos de organização espacial e contextualização sociológica e do lugar, segurança estrutural, materialidade, conforto e segurança dos utilizadores.*

## **Conteúdos Programáticos / Programa**

### **APRESENTAÇÃO**

*Programa, Bibliografia e Avaliação*

#### **1. INTRODUÇÃO AO ENSINO/APRENDIZAGEM DE CRIANÇAS E JOVENS NO AMBIENTE AO AR LIVRE**

- 1.1. Benefícios e constrangimentos físicos*
- 1.2. Benefícios e constrangimentos cognitivos*
- 1.3. Benefícios e constrangimentos sócio-comunitários*
- 1.4. Benefícios e constrangimentos emocionais e de bem-estar*

#### **2. INQUÉRITOS, QUESTIONÁRIOS E FICHAS DE LEVANTAMENTO**

#### **3. SELEÇÃO E VISITA A JARDINS E ESCOLAS PÚBLICAS**

#### **4. IDENTIFICAÇÃO DE CARÊNCIAS FÍSICAS DE JARDINS E ESCOLAS PÚBLICAS**

- 4.1. Carências físicas em jardins*
- 4.2. Carências físicas em escolas*

#### **5. JARDINS E ESCOLAS ADEQUADAS AO ENSINO/APRENDIZAGEM AO AR LIVRE**

- 5.1. Princípios de projeção em jardins*
- 5.2. Princípios de projeção em escolas*
- 5.3. Exemplos*

#### **6. PROPOSTAS DE SOLUÇÕES PROJETUAIS**

- 6.1. Discussão e Esboço de ideias*
- 6.2. Discussão de ideias no local de intervenção selecionado*
- 6.3. Concretização de ideias*
- 6.4. Discussão das soluções projetuais no local de intervenção selecionado*

## **Demonstração da coerência dos conteúdos programáticos com os objectivos de aprendizagem da unidade curricular**

*O aluno devera? desenvolver uma capacidade de recolha, análise e síntese da informação necessária para propor ambientes de ensino/aprendizagem ao ar livre.*

*A aprendizagem dos conteúdos programáticos vai proporcionar ao aluno o desenvolvimento de soft skills como organização espacial, capacidade de comunicação das suas ideias fundamentadas, liderança, resolução de problemas/desafios, trabalho em equipa e até mesmo ética no trabalho.*

### **Metodologias de ensino (avaliação incluída)**

*São constituídas equipas de trabalho que vão abordar o desafio proposto de acordo com o curso (2 elementos). Cada grupo terá de apresentar uma proposta de um ambiente de ensino/aprendizagem ao ar livre destinado às crianças ou jovens, a entregar até 3 dias úteis antes da data de avaliação. O trabalho desenvolvido será apresentado aos docentes da UC na modalidade AC ou ao júri designado pelo Conselho Pedagógico nas modalidades 1CE e 2CE), seguido da discussão do mesmo perante o júri na data de avaliação. A proposta submetida será o suporte da apresentação oral (duração máxima de 10 minutos) e da discussão (duração máxima de 15 minutos dividida em partes iguais entre o júri e os elementos do grupo). Em concordância com o RAAE, durante a discussão haverá lugar para a avaliação individual dos membros do grupo, através de questões dirigidas a cada elemento.*

*Os critérios de avaliação para apuramento da nota final da UC são: adequação da proposta (50%); apresentação oral (20%) e discussão (30%).*

### **Demonstração da coerência das metodologias de ensino com os objectivos de aprendizagem da unidade curricular**

*Os trabalhos de grupo fomentam a aprendizagem em contexto similar ao contexto profissional futuro. A discussão individual permite que o aluno seja avaliado individualmente e demonstre o grau de cumprimento dos objetivos da UC.*

*As ferramentas lecionadas serão aplicadas de forma autónoma pelos alunos no sentido de identificarem as lacunas físicas dos ambientes pedagógicos ao ar livre e planearem e discutirem ideias que colmatem as lacunas identificadas.*

*Os docentes acompanham o trabalho desenvolvido de forma a otimizar os resultados esperados, transmitindo a importância de levantar novas e desafiantes questões que estimulem o gosto pelo conhecimento e a investigação.*

### **Bibliografia Principal**

*Ebbeck, M.; Yim, H.Y.B.; Warriar, S. 2019. Early childhood teachers' views and teaching practices in outdoor play with young children in Singapore. Early Childhood Education Journal, 47:265-273. <https://doi.org/10.1007/s10643-018-00924-2>*

*Fielding, R. 2006. Best practice in action: six essential elements that define educational facility design. CEFPI (Council of Educational Facility Planners International) Planner, Association for Learning Environments: Scottsdale, AZ, USA*

*Harris, R; Bilton, H. 2019. Learning about the past: exploring the opportunities and challenges of using an outdoor learning approach. Cambridge Journal of Education, 49(1): 69-91, doi: 10.1080/0305764X.2018.1442416*

*Higgins, P.; Nicol, R. 2002. Outdoor education: authentic learning in the context of landscapes, vol. 2. An international collaboration project supported by the European*

Union, Comenius Action 2.1, European In-Service Training Courses: Kisa, Sweden

Lackney, J.A. 2000. *Thirty-three educational design principles for schools & community learning centers*.  
<http://faculty-legacy.arch.tamu.edu/rjohnson/courses/StudioF05/33SchoolDesignPrinciples.pdf> (consultado abril 2022)

Learning Policy Institute and Turnaround for Children. 2021. *Design principles for schools: putting the science of learning and development into action*.  
[https://turnaround.ams3.digitaloceanspaces.com/wp-content/uploads/2021/07/23124616/SoLD\\_Design\\_Principles\\_REPORT.pdf](https://turnaround.ams3.digitaloceanspaces.com/wp-content/uploads/2021/07/23124616/SoLD_Design_Principles_REPORT.pdf) (consultado junho 2022)

Mäkelä, T.; Leinonen, T. 2021. *Design framework and principles for learning environment co-design: synthesis from literature and three empirical studies*. *Buildings* 11(12), 581. <https://doi.org/10.3390/buildings11120581>

Minero, E. 2018. *The architecture of ideal learning environments*. George Lucas Educational Foundation.  
<https://www.edutopia.org/article/architecture-ideal-learning-environments> (consultado junho 2022)

Østern, T.P.; Gjørme, E.G. 2015. *Outdoor education as aesthetic pedagogical design in nature space understood as thirdspace*. *Sport and Art*, 3(1):1-10. doi: 10.13189/saj.2015.030101

Reis, G.; Scott, J. (Eds.). 2018. *International perspectives on the theory and practice of environmental education: a reader*. *Environmental Discourses in Science Education*, 3. Springer International Publishing AG

### **Bibliografia Complementar**

Aleixo, S. 2019. *Change and adaptation. Historic school buildings and the impact of conservation on cultural significance*. In Alexandra Alegre, Teresa Heitor, Maria Bacharel, Ana Fernandes (coord.), *Educational Architecture - Education, Heritage, Challenges Conference Proceedings* (p. 59-77), Instituto Superior Técnico

Angelidou, M. 2015. *Smart cities: A conjuncture of four forces*. *Cities*, 47:95-106

Campbell, C.; Robottom, I. 2004. *Environmental education: appropriate vehicle for science education?* *Teaching Science*, 50(2):18-23

Dudek-Klimiuk, J.; Warzecha, B. 2021. *Intelligent urban planning and ecological urban landscape - solutions for sustainable urban development. Case study of Wolfsburg*. *Sustainability*, 13(9), 4903. <https://doi.org/10.3390/su13094903>

Dunn, K.; Moore, M.; Murray, P. 2004. *Developing accessible play space: final research report*. Department for Communities and Local Government: London

Hemmings, P. 2007. *Renegotiating the primary school: Children's emotional geographies of sport, exercise and active play*. *Children's Geographies*, 5:353-371

Lee, R.; Lane S.; Tang, A.; Leung, C.; Kwok, S.; Louie, L.; Browne, G.; Chan, S. 2020. *Effects of an unstructured free play and mindfulness intervention on wellbeing in kindergarten students*. *Int. J. Environ. Res. Public Health*, 17(15), 5382. doi:10.3390/ijerph17155382

Lindon, J. 2007. *Understanding children and young people: Development from 5-18 years*. Hodder Arnold: London

Sandseter, E.B.H.; Kennair, L.E.O. 2011. *Children's risky play from an evolutionary perspective: the anti-phobic effects of thrilling experiences*. *Evolutionary Psychology*, 9.2:257-284

Tekin, M.; Özmutlu,?.; Ar?, Y.; Kara, E.; Senger, K.; Kapçak, V. 2022. *The effect of motor skills on the creative thinking levels of secondary school students*. *Revista de Educación*, 395(1):42-59



## CURRICULAR UNIT FORM

### Curricular Unit Name

202499307 - Innovations in Outdoor Teaching/Learning Environments

### Type

Elective

#### Academic year

2024/25

#### Degree

Phd Design  
Phd Urbanism  
Phd Architecture

#### Cycle of studies

3

#### Unit credits

10.00 ECTS

#### Lecture language

Portuguese

#### Periodicity

semester

#### Prerequisites

#### Year of study/ Semester

### Scientific area

Technologies of Architecture, Urbanism and Design

### Contact hours (weekly)

Tehoretical	Practical	Theoretical-practicals	Laboratory	Seminars	Tutorial	Other	Total
0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00

### Total CU hours (semester)

Total Contact Hours  
28.00

Total workload  
75.00

### Responsible teacher (name /weekly teaching load)

Jorge Manuel Tavares Ribeiro

### Other teaching staff (name /weekly teaching load)

Susana Maria Gouveia Rosado 1.00 horas  
Jorge Manuel Tavares Ribeiro 1.00 horas

### Learning objectives (knowledge, skills and competences to be developed by students)

*Raise students' awareness of the advantages of teaching/learning for children and young people outdoors;  
Develop concepts for collecting data and information about schools and gardens, as well*

*as their users;*

*Know fundamental principles of designing teaching/learning spaces;*

*Discuss the applicability of these principles to each particular case;*

*Apply the principles to each particular case in terms of spatial organization and sociological and place contextualization, structural safety, materiality, comfort, and safety of users.*

## **Syllabus**

### *PRESENTATION*

*Program, Bibliography and Assessment*

#### *1. INTRODUCTION TO OUTDOORS TEACHING/LEARNING CHILDREN AND YOUNG PEOPLE*

*1.1. Benefits and physical constraints*

*1.2. Cognitive benefits and constraints*

*1.3. Socio-community benefits and constraints*

*1.4. Emotional and well-being benefits and constraints*

#### *2. SURVEYS, QUESTIONNAIRES AND SURVEY SHEETS*

#### *3. SELECTION AND VISIT TO GARDENS AND PUBLIC SCHOOLS*

#### *4. IDENTIFICATION OF PHYSICAL NEEDS IN GARDENS AND PUBLIC SCHOOLS*

*4.1. Physical needs in gardens*

*4.2. Physical needs in schools*

#### *5. GARDENS AND SCHOOLS SUITABLE FOR OUTDOOR TEACHING/LEARNING*

*5.1. Garden design principles*

*5.2. Design principles in schools*

*5.3. Examples*

#### *6. PLANNING PROJECT SOLUTIONS*

*6.1. Discussion and Outline of ideas*

*6.2. Discussion of ideas at the selected intervention site*

*6.3. Implementation of ideas*

*6.4. Discussion of design solutions at the selected intervention site*

## **Demonstration of the syllabus coherence with the curricular unit's learning objectives**

*Students must develop the ability to collect, analyze, and synthesize the information necessary to plan outdoor educational spaces.*

*Learning the syllabus will give the student soft skills such as spatial organization, communicating their well-founded ideas, leadership, problem/challenge resolution, teamwork, and even work ethics.*

## **Teaching methodologies (including evaluation)**

*Workgroups will address the proposed challenge according to the course (2 elements). Each group will have to present a plan for an outdoor educational space intended for teaching/learning children and young people, to be delivered up to 3 working days before the assessment date. The work developed will be presented to CU teachers in the CA modality or to the jury designated by the Pedagogical Council in the 1EC and 2EC modalities), followed by its discussion before the jury on the evaluation date. The submitted proposal will support the oral presentation (maximum duration of 10 minutes) and the discussion (maximum duration of 15 minutes divided into equal parts between the jury and the group members). Following the RAAE, during the discussion, there will be room for individual assessment of group members, through questions addressed to each element.*

*The evaluation criteria for determining the final CU grade are: adequacy of the plan (50%); oral presentation (20%) and discussion (30%).*

### **Demonstration of the coherence between the Teaching methodologies and the learning outcomes**

*Group work encourages learning in a context similar to the future professional context. Individual discussion allows the student to be assessed individually and demonstrate the degree of achievement of the CU objectives.*

*Tools taught will be applied autonomously by students to identify the physical gaps in outdoor educational spaces and plan and discuss ideas that fill the identified gaps.*

*Teachers monitor the work carried out to optimize the expected results, conveying the importance of raising new and challenging questions that stimulate a taste for knowledge and research.*

### **Main Bibliography**

*Ebbeck, M.; Yim, H.Y.B.; Warriar, S. 2019. Early childhood teachers' views and teaching practices in outdoor play with young children in Singapore. *Early Childhood Education Journal*, 47:265-273. <https://doi.org/10.1007/s10643-018-00924-2>*

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### **Additional Bibliography**

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