NAAB International Certification

Appendix 1: Template for Course Descriptions [limit 1 page per course]

Number & Title of Course (total credits awarded):
DGC111 - Descpritive and Conceptual Geometry in Architecture - Semester 1 - ECTS 6 - Cicle/Profile: 1st. Cycle/Core - Scientific Area: DGC-Drawing, Geometry and CAD

Course Description (limit 25 words)
To provide the students with the foundations for geometrical and technical representation in the field of architectural design.

Course Goals & Objectives (list):
1. To frame geometry as the support for representation and spatial-formal structuring;
2. To systematize the potential and interoperability of the various representation systems;
3. To introduce the study of elementary geometric structures and operations;
4. To explore and identify relationships between representation and visual perception trough drawing;
5. To enable connections between manual and digital representations.

Student Performance Criterion addressed (list number and title):
Primary - A.4 Architectural Design Skills; Secondary - A.5 Ordering Systems; A.6 Use of Precedents;

Topical Outline (include percentage of time in course spent in each subject area):
1. Lecturing and written assessment:
1.A. Geometry and Graphic ideation (representation, design and vision); Flexibility, rigor and precision - (5%);
1.B. Representation Systems: Orthographic projections, Topographic projections, Axonometry and Perspective - (25%);
1.C. Geometric structures: conic curves; polyhedra; ruled, curved and topographical surfaces - (10%);
1.D. Geometric operations and transformations: Euclidean, affine, and projective transformations; Intersections and tangencies; Boolean operations - (10%);
2. Portfolio assessments: Representation and compositions in several representation systems; Roof design; Landfill and excavations - (50%).

Prerequisites:
It does not have; It does not have; It does not have;

Textbooks/Learning Resources:
Asensi, F. I. (2000). Geometría Descriptiva (24ª ed.). Editorial Paraninfo.
Ching, F. D. K., Juroszek, S. (2001). Representação gráfica para desenho e projecto (ed. Portuguesa). Gustavo Gili.
Cunha, L. V. (1999). Desenho Técnico (11ª ed.). Fundação Calouste Gulbenkian.
Mateus, L. (2023). Textbook.
Mateus, L. (2004). Sistema axonométrico de representação: História, teoria e prática, FAUTL, Lisboa.

Offered (semester and year):
1st Year - Fall;

Faculty assigned (list all faculty assigned during the two academic years prior to the visit):
Filipe Alexandre Duarte González Migães de Campos; José Vítor de Almeida Florentino Correia; Luís Miguel Cotrim Mateus; Nuno Miguel Alão Soares Gomes; Filipe Alexandre Duarte González Migães de Campos; José Vítor de Almeida Florentino Correia; Luís Miguel Cotrim Mateus; Filipe Alexandre Duarte González Migães de Campos;

José Vítor de Almeida Florentino Correia; Luís Miguel Cotrim Mateus;