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| **PROGRAMA** |
| 1. Name of the course:
 |  Built Environment, Urban Experience and Wellbeing.  |
| 1. Section name:
 | Optional Course  |
| 1. Profesores:
 | Dr. Pablo Navarrete-Hernandez  |
| 1. Teacher Assistants:
 | To be defined |
| 1. Nombre de la actividad curricular en espanol:
 | Entorno construido, experiencia urbana y bienestar. |
| 1. Academic Unit:
 | Undergraduate School/ School of Architecture |
| 1. Total hours of work:
 | 11.4 hours/week |
| 7.1 Direct hours (in-person): | 4.5 hours |
| 7.2 Indirect hours (personal-work): | 6.9 horas |
| 1. Credits:
 | Transferable Credits System (TCS) |
| 1. Número of credits TCS – Chile:
 | 6 |

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| 1. General Purpose
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| Diener et al. (2002, p.63) define subjective wellbeing (SWB) as "the cognitive and affective evaluations of a person about his life". There is now a growing literature documenting the links between the quality of an individual's built environment and their affective response. For example, SWB assessment techniques show that low-quality urban environments are associated with lower levels of happiness, life satisfaction, and perceived safety. In contrast, they elicit higher levels of depression, stress, and anxiety. With the rapid urbanisation of the world, especially in developing countries, maintaining a high-quality urban environment will increasingly play a vital role in promoting human wellbeing. Despite its relevance, most of the built environment is designed, planned and produced without considering its impact on citizens' SWB.This course aims to equip students with a core understanding of SWB and its links to the built environment and practical, yet methodologically robust, techniques to incorporate SWB in urban planning and design. The course starts by covering different conceptions and problems to measure human wellbeing, focusing mainly on SWB. Then will cover the human senses focusing on the vision and audition as the key senses used to perceive the built environment. We will focus then on discussing quantitative techniques, notably experimental strategies (RCTs-randomized controlled trials), to analyses the merits and problems of the SWB existing evidence. This part will revise techniques to measure SWB, focusing on affective psychological scales and biosensor devices. The final section of the course will link the knowledge acquired previously with burning urban discussions, including "happy cities," "urban anxiety and stress," and "cities and fear of crime." The course will be assessed through a 2 hours written exam and a group exercise. The group project will consist in generating either a design, an urban plan, or an applied urban research project to enhance SWB and measure its impact through an image-based experiment in Santiago de Chile.  |

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| 1. Learning Objectives
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| At the end of the course, students are expected to:1. Mobilised key concepts and academic argument supporting the relationship of users' subjective wellbeing and the built environment.
2. Critically evaluate the quality of the evidence from environmental psychology studies
3. Implementing robust methodologies to empirically produce evidence on the impact built environment changes on the subjective wellbeing of people.
4. Propose evidence-based designs or actions to improve subjective wellbeing in the urban environment.
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| 1. Content:
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| **Unit 1: Scientific foundations for the study of subjective wellbeing.**This unit provides students with the scientific bases to evaluate the quality of the evidence provided by various published studies of environmental psychology and discuss the need to move towards causal studies. It also provides tools for conducting randomised controlled trials to measure the impact of transformations on the built environment. At the same time, it discusses at a neurological level, how vision and hearing mostly construct our understanding and experiences in the urban environment and therefore invites students to reflect on the type of stimuli to present - images, videos and the virtual reality- to understand the environment-wellbeing causal relationship.**Unit 2: Subjective wellbeing measurement strategies at the conscious and subconscious level.**This unit seeks to discuss how psychology and neuroscience use tools to measure human beings' emotional responses and how we can use or adapt them to accurately measure the impact that the transformation of the built environment has on people's wellbeing. Here we will cover the main psychometric scales for measuring emotions (conscious declaration) and tools to measure the autonomous nervous system's involuntary emotional responses such as pupillary dilation or skin conductance.**Unit 3: Emerging debates on subjective wellbeing in the city.**This unit will discuss three major emerging debates on the impact of the built environment on citizens' subjective wellbeing. In the first class will cover theories about Crime Prevention Through Environmental Design and review the empirical evidence supporting this theory. We will then review the debate regarding urban happiness and the evidence of the impact that the quality of the built environment. Finally, we will focus on the influence of the urban environment on stress and anxiety responses, and what urban transformations have a proven to decrease them.  |

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| 1. Calendar
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| **Week** | **Content/Activities** |
| 1 | **Unit 1: Scientific foundations for the study of subjective wellbeing.**Review of the main quantitative methodologies and the hierarchy of evidence quality. Discussion on the problems and weaknesses of descriptive and inferential statistics, as well as the need to move towards causal methods.**Classwork:** project group, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 2 | **Unit 1: Scientific foundations for the study of subjective wellbeing.**We will teach the golden causal inference methodology, randomised controlled trials, and strategies to utilise this method to study changes in the built environment. At the same time, we will analyse the use of photo-rating to construct subjective wellbeing maps and detect high/low SWB clusters. **Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 3 | **Unit 1: Scientific foundations for the study of subjective wellbeing.**The sense of vision will be analysed from a neurological perspective, indicating how vision works, how images are captured, and the visual system's failures. We will also discuss the specialisation of the human brain in image processing, which defines it as an eminently visual species.**Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 4 | **Unit 1: Scientific foundations for the study of subjective wellbeing.**In this class, we will understand how the sense of hearing works from a neurological point of view, how the brain builds sound, and our ability to understand language. In addition, the existing evidence regarding the impact of so-called soundscapes on citizens' wellbeing.**Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 5 | **Unit 2: Subjective wellbeing measurement strategies at the conscious and subconscious level.**In this class, we will review the major psychological scales for measuring emotions and how they can be implemented to measure subjective wellbeing in the built environment. We will also discuss the limitations of its use to measure emotional responses in the city and its need to expand them.**Written Exam:** Set of questions about the content of Unit 1 |
| 6 | **Unit 2: Subjective wellbeing measurement strategies at the conscious and subconscious level.**In this lecture, we will review the autonomic system's structure as a neurological structure that regulates our bodily responses to emotions. Here, the focus will be on understanding how these objective measurements of body responses have provided insight to the research on the link between wellbeing and the built environment.**Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
|  7 | **Hand-in progress on practical exercise 1: The document has to be sent via U-Courses.****Unit 3: Emerging debates on subjective wellbeing in the city.**In this class, we will review debates on the impact of the built environment on crime and perception of safety, with a focus on gender issues.**Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 8 | **Unit 3: Emerging debates on subjective wellbeing in the city.**This class will analyse what stress and anxiety are, how they differ and how the urban environment can affect these responses.**Classwork:** correction practical exercise, development and presentation of PPT via Zoom and later upload to U-Courses. |
| 9 | **Unit 3: Emerging debates on subjective wellbeing in the city.**This final lecture will discuss the hot topic of happy cities. We will analyse what they are, and what evidence exists of the influence of the built environment on peoples perceptions of happiness across several urban topics. **Classwork:** Full correction of practical exercise 1. |
| 10 | Hand-in Essay via U-Courses. Presentation of the Practical Exercise results to a panel of experts. |

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| 1. Methodology:
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| * This course uses a theoretical-practical methodology and will include online lectures via Zoom, virtual synchronous discussion forums, and theoretical-practical work.

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| 1. Resources:
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| * To follow this online course, students require a personal computer, a stable internet connection, and a virtual operational platform for the teaching team and students.
* For the first two classes on research methods and the practical exercise, Stata software's installation (preferably) or R is required.
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| 1. Waste Management:
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| Excersise | Material | Waste management |
|  Do not apply |  |  |
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| 1. Requirement for other spaces
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| Fecha | Duración | Lugar |
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| 1. Assessment
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| There will be three different assessment activities: 1. Theoretical Exam: Weighting of 30% on the final grade of the course2. Group Presentation (results practical exercise 1): Weighting of 20% on the final grade of the course3. Group Essay 7000 words (paper of practical exercise 1): Weighting of 50% on the final grade of the courseClass attendance is compulsory and must be higher than 75%. Acceptance of medical certificates is at the teacher's discretion. |

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| 1. Approval requirements:
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| The course will be approved with a grade equal to or greater than 4.0 (four).A minimum attendance of 75% will be contemplated (according to regulations).It is required to be able to read in English (Bibliography in English) |

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| 1. Keywords: Wellbeing, User Experience, Built Environment, Happiness, Safety, Stress.
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| 1. Bibliography Compulsory (no más de 5 textos)
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| John Macdonald, Charles Branas, and Robert Stokes (2019) Changing Places: The Science of New Urban Planning. New Jersey: Princeton University Press. (Preface and Chapters 1, 2, 3, 5)Navarrete-Hernandez, P. and Laffan, K. 2019. A greener urban environment: Designing green infrastructure interventions to promote citizens' subjective wellbeing, Landscape and Urban Planning, Volume 191,103618.MacKerron, George and Mourato, Susana (2013) Happiness is greater in natural environments. Global Environmental Change 23 (2013) 992–1000Navarrete-Hernandez, Vetro, A. and Concha, P. 2021. Building safer public spaces: Exploring gender difference in the perception of safety in public space through urban design interventions. Landscape and Urban Planning (forthcoming) |
| 1. Bibliografía Complementaria:
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| Se entregará literatura específica para cada clase. |

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| **IMPORTANTE** |
| * Sobre la asistencia a clases:

La asistencia mínima a las actividades curriculares queda definida en el Reglamento General de los Estudios de Pregrado de la Facultad de Arquitectura y Urbanismo (Decreto Exento N°004041 del 21 de Enero de 2016), Artículo 21: *“Los requisitos de asistencia a las actividades curriculares serán establecidos por cada profesor, incluidos en el programa del curso e informados a los estudiantes al inicio de cada curso, pero no podrá ser menor al 75% (…) El no cumplimiento de la asistencia mínima en los términos señalados en este artículo constituirá una causal de reprobación de la asignatura.* *Si el estudiante presenta inasistencias reiteradas, deberá justificarlas con el/la Jefe/a de Carrera respectivo, quien decidirá en función de los antecedentes presentados, si corresponde acogerlas”.* * Sobre evaluaciones:

Artículo N° 22 del Reglamento General de los Estudios de Pregrado de la Facultad de Arquitectura y Urbanismo (Decreto Exento N°004041 del 21 de Enero de 2016), se establece: *“El rendimiento académico de los estudiantes será calificado en la escala de notas 1,0 a 7,0 expresado hasta con un decimal. La nota mínima de aprobación de cada asignatura o actividad curricular será cuatro (4,0)”.* * Sobre inasistencia a evaluaciones:

Artículo N° 23 del Reglamento General de los Estudios de Pregrado de la Facultad de Arquitectura y Urbanismo: *“El estudiante que falte sin la debida justificación a cualquier actividad evaluada, será calificado automáticamente con nota 1,0. Si tiene justificación para su inasistencia, deberá presentar los antecedentes ante el/la Jefe/a de Carrera para**ser evaluados. Si resuelve que la justificación es suficiente, el estudiante tendrá derecho a una evaluación recuperativa cuya fecha determinará el/la Profesor/a.* *Existirá un plazo de hasta 3 días hábiles desde la evaluación para presentar su justificación, la que podrá ser presentada por otra persona distinta al estudiante y en su nombre, si es que éste no está en condiciones de hacerlo”.*  |