

# PSYCHOLOGY DRIVEN WEB DESIGN COURSE BOOKLET

**Create impactful websites and apps that appeal simultaneously to the intellect, emotions and subconscious of users.**

A course presented by [inspiraition.com](http://inspiraition.com)

## **COURSE DESCRIPTION**

### GENERAL DESCRIPTION

There are over 250 million regularly updated websites on the internet, that look, in one way or another, similar. How can yours stand out in this crowded place? How can you make sure that your first-time visitors have an engaging user experience and come again? And when they do, quickly find what they're looking for to accomplish their goals? Can you change their mood to the better and use that positivity to achieve your website goals? Or anticipate their unconscious desires and cater to them?

This course will enable you to create effective and affective websites that are centered around how human beings work. By teaching you how to take findings in applied psychology into account when designing, it will empower you to predict how people will interact with your website and to take their perceptual biases, motivations, emotional states, and unconscious cognitions into consideration.

Only when you thoroughly understand the human mind can you hope to create designs that are simple yet pleasing and engaging at the same time. Psychology driven design aims to help accomplish that, by making you aware, at every step of a creative process, how humans think, feel and act. And the result of it is a product that appeals simultaneously to the intellect, emotions as well as unconscious desires of users.

Some people refer to this method as "designing for the mind" others as "designing for humans" or even "neuropsychology". We prefer the term "psychology driven design", because the concept relies on findings in cognitive, behavioral and social psychology to determine, how, for example, the structure of a website influences users' perception of it; how the colors and types used by its designer affect their mood; and how they interact with it to connect with others.

The psychological impact of the design of a website determines if users will trust it or not, if they will feel important, or at ease, or curious and so on. In short, it is the number one determinant of a good or bad web user experience, and regardless of whether you are new to web design or a seasoned professional, if you would like to understand how you can use its power, then this is the right course for you.

## WHO THIS COURSE IS FOR

This course is useful for all web designers, to a great extent also app designers, independent of their level of expertise and years of experience, from individuals who are using readymade templates to publish their first personal conceptions, to highly professional designers who are creating original web interfaces for Fortune 500 companies. This course is very useful even for those content creators, who are not versed in web design at all, but wish to insert some content into an existing web-based platform in an impactful manner.

The course is especially beneficial for those who want to accomplish the creative part of designing a website, to then have a web developer do the coding; for those who use ready-made web templates that can be modified by users to quickly personalize them; and of course, for those who are already proficient in developing websites but who can use deeper design knowledge to make their creations more effective. If you are in this last category, this course can give you sound reasons for much of what is felt intuitively, and yet not fully understood.

## HOW THIS COURSE WILL BENEFIT YOU

Website elements have become more or less standardized, so that by combining them within some context you can quickly end up with a fairly good-looking website. But the problem is, content and design are interrelated. Websites that are based on off-the-shelf themes by themselves cannot claim the kind of relationship that makes a website impactful, as a theme is always built on dummy content. This means that, in order to select content appropriate layouts, visuals, colors, typography etc., to create content that is scannable and shared more, to design user experiences that are gamified and personalized, you do have to master the way to influence the perception of your visitors, whether you design from scratch or use a template. In that sense, learning about psychology driven web design will enable you to:

- Understand why successful websites have been designed the way they have been;
- Evaluate why, in some context, a certain design generates positive emotions and thoughts while another leads to user frustration;
- Create designs that increase conversions by taking latest findings in applied psychology into account;
- Design websites that support the quirks, biases and defining features of the human mind;
- Design displays that support human visual perception and improve the user experience.

In a word, by the end of this course, you will be able to create better websites and be more successful at what you do.

## WHAT YOU WILL LEARN IN THIS COURSE

### PART 1

At the end of the course, students will be able to create effective and affective websites that appeal simultaneously to the intellect, emotions as well as unconscious desires of users by taking findings in applied psychology into account when designing them.

- Design effective and affective websites and apps by focusing on user psychology.
- Use recent findings in neuroscience and applied psychology when creating online content.
- Consider the instinctive, emotional and rational manifestations of the human mind when publishing on the web.
- Use subtleties of human cognition for designing balanced and aesthetically pleasing websites.
- Use gestalt and visual design principles to build strong visual hierarchies that guide users to their goals.
- Use color with greater psychological impact in web and app design.

## PART 2

- Create content that is suitable for scanning, better readable, more impactful and shared more.
- Select, stylize and optimize visuals and multimedia for inspirational use on web pages.
- Use typography and iconic representations with greater psychological impact in web design.
- Design e-commerce websites and customer experiences that convert much better.
- Improve usability of controls and design better user interactions by understanding limitations of human beings.
- Conceive personalized user experiences by learning to design for different psychological profiles of individuals.
- Use gamification to create more engaging websites.
- Design for mobile environments and different contexts.

## MAIN LEARNING OBJECTIVES OF THE SECTIONS

### PART 1

Learning to design with user focus, from goal setting, through user research, defining personas, creating scenarios, devising user journeys and user experiences, user motivations, all the way to information architecture, usability and usability testing, and accessibility issues.

Learning to take the characteristics and limitations of human attention, memory, perception, language and reading skills, learning abilities, and different types of emotions into consideration when designing a website.

Learning how to account for perceptual biases of users in order to create websites that are more appealing to their subconscious mind and easier for them to navigate, by understanding the gestalt principles of perception.

Learning to create perceptual organization using similarity and contrast, visual weights, visual directions, dominance, focal points, compositional hierarchy, flow and rhythm, compositional balance, proportion, whitespace and much more to achieve strong visual hierarchy, simplicity, unity, variety, and consistency in design.

Learning to use the impact of color on human psychology to convey specific feelings and messages in your designs.

## PART 2

Learning to create content that is suitable for scanning, better legible and readable, more impactful, socially accepted, and shared more, which are essential skills for any blogger.

Learning to judge the purposefulness, appropriateness as well as psychological impact of visuals, multimedia, and typography by taking into consideration such issues as the psychological impact of faces and anthropomorphic forms on photographs, the attractiveness bias, the meanings of common shapes, the use of digital arts, infographics, iconic representation, the psychology of typography and much more.

Learning to take characteristics and differences of individual users, as well as subtle details relating to specific user groups, including culture, gender, age, etc. into account for creating personalized experiences that resonate differently with different psychological profiles, groups and communities.

Learning to take human time requirements, responsiveness of designs, conceptual models in interactions, the usability of controls into account, and to be able to design effective call-to-action buttons, effective forms, gamification, real-time technology and mobile user interactions.

Learning to account for the triune nature of the human mind, the inconsistency of the self, the psychology of trust, the psychology of choice, the psychology of decision making, the price and quality perception, the psychology of scarcity and urgency, the psychology of reciprocity and rewards, the effects of social validation, and more generally, for all idiosyncrasies of human psychology to be able to design e-commerce websites that convert.

## PREREQUISITES

There are no prerequisites for this course. If you can browse the internet and know what menus, buttons and links are, you can follow all the lectures. No literacy in psychology is required as all necessary knowledge will be conveyed, in laymen's terms.

## THE LEVEL OF STUDY

This is a comprehensive course for students at all levels, from beginner to advanced, where every aspect of psychological influence in web design is dealt with in detail. It is not a quick, one-hour design tutorial, not a presentation of inspirational lists and certainly not a tool tutorial. While someone on their first project can easily follow the lectures, even a seasoned professional web designer can find here some inspiration in terms of psychological impact to improve their work.

The course consists of two parts, where PART 1 covers the fundamentals and PART 2 covers advanced topics.

The curriculum of the course is completely original, meaning that it does not follow any one book written by a third party. However, the information contained in the over 800-page course script has been checked against 12 contemporary design / psychology books and over 600 pages of design / psychology blogs.

The summary of this course is being sold as a kindle book on Amazon. It is provided to all students of the course free of charge.

You will receive a valuable certificate that you can add to your CV when you finish this course.

## THE TEACHING METHOD

This course contains a total of 160 video lectures, 80 in PART 1 and 80 in PART 2, with each lecture having a duration of approximately 15 minutes (some a few minutes longer, others a few minutes shorter). The lectures are organized in 10 coherent content sections, plus one introductory section and one conclusion section.

The second section of the course serves as an extended introduction, where the entire user focused web design process is explained from goal setting all the way to usability testing, so that someone with no experience in web design at all can, having studied this section, easily understand the later section. For more experienced designers, this section may appear to be superfluous, but should nevertheless serve to solidify the basis for later sections.

Sections three and four convey the fundamentals of cognitive psychology so far as required for designing impactful websites, with lots of illustrations and always in laymen's terms. From the fifth section onwards, the lectures are heavily supported by exemplary websites, either screenshots or video captures, where concepts are discussed with the help of design examples.

At the end of each section, there is a quiz. However, due to the nature of the subject matter, the quizzes can only serve to reinforce what has been explained in the lectures rather than testing design knowledge. Your actual progress can only be attested to by yourself in the long run through the changes you will notice in your creations.

Everything you'll learn in this course relates to creating effective and affective websites. But it is one thing to hear about concepts, yet another to actually implement them in design work. Even though a great many number of examples are shown in the lectures, mastery in design requires practicing and so you will have to do the real work more or less by yourself. There are 82 assignments that accompany the lectures to facilitate a more active learning experience, which are the secret ingredients to the success of learning psychology driven design.

All assignments are applicable on any one of 5 web design projects, based on imagined scenarios introduced in the fifth lecture. The assignments, if properly worked on, can take the student from an

empty canvas to a finished web design project. In other words, a student applying all assignments on all 5 scenarios will end up with not one but five portfolio-ready website designs by the end of the course.

### WHAT THIS COURSE IS **NOT** ABOUT

This course is **NOT** about learning web development using HTML / CSS / Scripting Languages. It is also **NOT** about encoding, implementing, or publishing an actual website on some platform. This course is about web design.

This is also **NOT** a psychology course. While a great number of topics are covered here that are usually taught within the curriculum of a psychology course, including advanced topics in neuroscience, the emphasis is always on practical design implications of these and **NOT** on theoretical notions of cognition or behavior.

Psychology driven design is **NOT** about the psychology of the designer or designers in a design team or their interactions with other project stakeholders or the design methods they may be employing. The focus here is always on the psychology of the website visitor.

Psychology driven design is also **NOT** about hacking people's brains, or using techniques for manipulating their unconscious mind, or persuading them to buy things they don't need. It is merely about using knowledge gained about the way human beings work for designing impactful websites, apps and more generally, web-based user experiences.

Psychology driven design is **NOT** the same thing as user-centered design. Nevertheless, even though this course is **NOT** particularly about teaching the standardized user-centered design methodology, or the design thinking concept, it touches upon many of the topics that are usually covered in those fields of study, but then goes way beyond.

The applicability of psychology driven design is **NOT** limited to creation of business websites. It is applicable to all types of websites, from personal blogs to virtual reality-based community forums.

### **ABOUT THE INSTRUCTOR**

INSPIRAITION ONLINE is an education studio set up in 2020. It is dedicated to creating inspirational online courses of the highest quality to help students from all walks of life tackle upcoming technological and social challenges.

Your instructor for this course has an engineering degree from the Swiss Institute of Technology, 32 years of international experience in design, working for some of the most prestigious corporations in the world, has designed over 80 professional level websites since 2000, and has received diverse levels of certification in psychology, neuroscience, artificial intelligence, robotics and a number of programming and scripting languages including HTML, CSS, PHP, MySQL, JavaScript, Java, Python, C, C++. In his private life, he is a keen student of mindfulness meditation, symbolism and esotericism.

## **COURSE CONTENT**

### SECTION 1: Introduction

- LECTURE 1.1: Welcome to Psychology Driven Web Design
- LECTURE 1.2: Content and its Presentation on the Web
- LECTURE 1.3: A First Glimpse
- LECTURE 1.4: The Structure of the Course
- LECTURE 1.5: Assignment Projects

### SECTION 2: Overview of the Web Design Process

- LECTURE 2.1: User Experience
- LECTURE 2.2: User Expectations
- LECTURE 2.3: Goal Alignment
- LECTURE 2.4: Target Audience and SMART Goals
- LECTURE 2.5: User Research
- LECTURE 2.6: User Maps
- LECTURE 2.7: Personas
- LECTURE 2.8: Motivations and the Hierarchy of Needs
- LECTURE 2.9: Information Architecture
- LECTURE 2.10: Overview of Website Elements
- LECTURE 2.11: Designing with Data
- LECTURE 2.12: Accessibility Issues
- LECTURE 2.13: Extrinsic Design Constraints
- LECTURE 2.14: Assessment of the User Experience
- LECTURE 2.15: Section Summary

### SECTION 3: Cognitive Psychology for Web Design

- LECTURE 3.1: Introduction to Cognitive Psychology
- LECTURE 3.2: How the Brain Works
- LECTURE 3.3: The Triune Brain Model
- LECTURE 3.4: Attention
- LECTURE 3.5: Short-Term Memory
- LECTURE 3.6: Long-Term Memory
- LECTURE 3.7: Recognition versus Recall
- LECTURE 3.8: Visual Perception
- LECTURE 3.9: Visual Perception (Continued)
- LECTURE 3.10: Language and Reading
- LECTURE 3.11: Learning
- LECTURE 3.12: Emotions
- LECTURE 3.13: Emotions (Continued)
- LECTURE 3.14: Cognitive Biases

LECTURE 3.15: Section Summary

SECTION 4: Gestalt Psychology for Web Design

- LECTURE 4.1: Introduction to Gestalt Psychology
- LECTURE 4.2: Emergence and Meaningfulness
- LECTURE 4.3: Conciseness and Invariance
- LECTURE 4.4: Symmetry
- LECTURE 4.5: Multistability and Figure / Ground Distinction
- LECTURE 4.6: Reification and Closure
- LECTURE 4.7: Continuity
- LECTURE 4.8: Grouping by Proximity
- LECTURE 4.9: Grouping by Similarity
- LECTURE 4.10: Grouping by Connectedness
- LECTURE 4.11: Grouping by Common Region
- LECTURE 4.12: Grouping by Common Fate
- LECTURE 4.13: Grouping by Synchrony
- LECTURE 4.14: 3D Vision
- LECTURE 4.15: Section Summary

SECTION 5: Visual Design Principles

- LECTURE 5.1: Introduction
- LECTURE 5.2: Unity, Variety and Simplicity in Design
- LECTURE 5.3: Consistency for Better Usability
- LECTURE 5.4: Similarity and Contrast
- LECTURE 5.5: Visual Weight
- LECTURE 5.6: Visual Direction
- LECTURE 5.7: Dominance and Focal Points
- LECTURE 5.8: Compositional Hierarchy, Flow and Rhythm
- LECTURE 5.9: Compositional Balance
- LECTURE 5.10: Whitespace as a Design Element
- LECTURE 5.11: Aesthetic Proportions
- LECTURE 5.12: Natural Focal Points and Axes
- LECTURE 5.13: Grid Systems
- LECTURE 5.14: Layout and Design Examples
- LECTURE 5.15: Section Summary

SECTION 6: Color Psychology for Web Design

- LECTURE 6.1: Introduction to Using Colors in Web Design
- LECTURE 6.2: Color Vision Revisited
- LECTURE 6.3: Color Harmony
- LECTURE 6.4: Introduction to Color Psychology



LECTURE 6.5: Red and its Tints and Shades  
LECTURE 6.6: Yellow and Orange  
LECTURE 6.7: Green and Brown  
LECTURE 6.8: Blue and Purple  
LECTURE 6.9: Light Neutrals  
LECTURE 6.10: Dark Neutrals  
LECTURE 6.11: Choosing the Right Colors  
LECTURE 6.12: Using Colors in E-Commerce  
LECTURE 6.13: Website Examples  
LECTURE 6.14: Color Blindness  
LECTURE 6.15: Section Summary

## SECTION 7: Content Designed for the Web

LECTURE 7.1: Introduction  
LECTURE 7.2: Distinctive Design  
LECTURE 7.3: Scanning versus Reading  
LECTURE 7.4: Scanning Patterns  
LECTURE 7.5: Creating Scannable Compositions  
LECTURE 7.6: Writing for Scannability: Highlighting  
LECTURE 7.7: Writing for Scannability: Style  
LECTURE 7.8: Reading Comprehension  
LECTURE 7.9: Creating Accurate Body Copy  
LECTURE 7.10: Writing for Deep Reading  
LECTURE 7.11: Storytelling as a Writing Style  
LECTURE 7.12: Social Content and Content Curation  
LECTURE 7.13: Content Sharing  
LECTURE 7.14: Going Viral and Content Marketing  
LECTURE 7.15: Section Summary

## SECTION 8: Visuals and Typography

LECTURE 8.1: Introduction  
LECTURE 8.2: The Picture Superiority Effect  
LECTURE 8.3: The Psychological Impact of Faces  
LECTURE 8.4: Anthropomorphic Forms and the Attractiveness Bias  
LECTURE 8.5: The Meanings of Common Shapes  
LECTURE 8.6: The Use of Images in Web Design  
LECTURE 8.7: Photography and Digital Arts  
LECTURE 8.8: Multimedia Content  
LECTURE 8.9: Infographics and Modern Pictograms  
LECTURE 8.10: Iconic Representation  
LECTURE 8.11: Designing Memorable Icons  
LECTURE 8.12: Introduction to Typography

LECTURE 8.13: Psychology of Typography  
LECTURE 8.14: Choosing the Right Typeface  
LECTURE 8.15: Section Summary

## SECTION 9: The Individual and Individuation

LECTURE 9.1: Introduction  
LECTURE 9.2: Distinctiveness of the User  
LECTURE 9.3: Gender Differences  
LECTURE 9.4: Generational Differences  
LECTURE 9.5: Cultural Differences  
LECTURE 9.6: Personality Types  
LECTURE 9.7: Psychographic Segmentation  
LECTURE 9.8: Customization, Personalization, Individuation  
LECTURE 9.9: Customization and Personalization Best Practices  
LECTURE 9.10: Individuation in E-Commerce  
LECTURE 9.11: Adapting to Devices  
LECTURE 9.12: Behavioral Conditioning  
LECTURE 9.13: Behavior of Individuals in Crowds  
LECTURE 9.14: Global Audiences and Stereotyping  
LECTURE 9.15: Section Summary

## SECTION 10: Psychology of Interactions

LECTURE 10.1: Introduction  
LECTURE 10.2: Interaction Design Challenges  
LECTURE 10.3: Human Time Requirements  
LECTURE 10.4: Designing for Human Time Requirements  
LECTURE 10.5: Conceptual Models in Interactions  
LECTURE 10.6: Fitts' Law and Usability of Controls  
LECTURE 10.7: Designing Effective Call-to-Action Buttons  
LECTURE 10.8: Designing Effective Forms  
LECTURE 10.9: Anticipating Users' Mistakes and Error Handling  
LECTURE 10.10: The Philosophy of Gamification  
LECTURE 10.11: Designing for Players  
LECTURE 10.12: Mechanics of Gamification  
LECTURE 10.13: Real Time Technology and Chatbots  
LECTURE 10.14: Mobile User Interactions  
LECTURE 10.15: Section Summary

## SECTION 11: Psychology of E-Commerce

LECTURE 11.1: Introduction  
LECTURE 11.2: The Online Sales Cycle

- LECTURE 11.3: Using the Triune Brain Model in E-Commerce
- LECTURE 11.4: Psychology of Trust
- LECTURE 11.5: Psychology of Choice
- LECTURE 11.6: Psychology of Decision Making
- LECTURE 11.7: Price and Quality Perception
- LECTURE 11.8: Psychology of Scarcity and Urgency
- LECTURE 11.9: Psychology of Reciprocity and Rewards
- LECTURE 11.10: Using the Inconsistency of the Self
- LECTURE 11.11: Storytelling in E-Commerce
- LECTURE 11.12: Social Validation
- LECTURE 11.13: Effective Testimonial Pages
- LECTURE 11.14: Cognitive Biases
- LECTURE 11.15: Section Summary

## **DETAILED DESCRIPTION OF THE COURSE CONTENT**

### **SECTION 1: INTRODUCTION**

⊙ *Understand what psychology driven web design is about.*

This section provides an introduction into the subject matter of the course, the structure of the course, the scenarios that the assignment projects of the course are based on, the influence of user interface design trends on web design, as well as the design background of the instructor.

### **LECTURE 1.1: Welcome to Psychology Driven Web Design**

⊕ *Understand how psychology can contribute to designing effective and affective websites.*

In this lecture we discuss what psychology driven design is and what it is not, how it is different from user-centered design, who can employ it and who it is especially useful for, its advantages over other design approaches, how different fields of psychology can contribute to designing effective and affective web user interfaces, and generally the framework of the course.

### **LECTURE 1.2: Content and its Presentation on the Web**

⊕ *Understand the relationship between content and its presentation.*

⊕ *Understand the influence of user interface design trends on web design.*

In this lecture we discuss the relationship between content and its presentation in web design, how psychology impacts these, how web design has been influenced by trends in design of graphical user interfaces over the years, and touch upon topics such as the importance of simplicity, skeuomorphism, flat design, and responsive design. We also learn about the Swiss design style, as it relates to the design background of the course instructor, and how current web design trends incorporate its methods.

### **LECTURE 1.3: A First Glimpse**

⊕ *Understand the historical development of designing with user focus.*

In this lecture we briefly look at how the designs of Apple.com and Tripadvisor.com changed over the years and try to understand why those changes occurred.

### **LECTURE 1.4: The Structure of the Course**

⊕ *Understand the general framework of the course.*

In this lecture we discuss the section goals and how each section contributes to fulfilling the overall course objective as well as a few notes about the general framework of the course.

### **LECTURE 1.5: Assignment Projects**

⊕ *Learn about the scenarios that the assignment projects of the course are based on.*

In this lecture the scenarios that the five assignment projects of the course are based on are introduced.

## **SECTION 2: OVERVIEW OF WEB DESIGN WITH USER FOCUS**

⊕ *Understand the design process involved in psychology driven web design.*

This section is about the design process, from setting goals through user research, user motivations, all the way to considering accessibility issues. We discuss here such important topics as defining personas, creating scenarios, user journeys and user experiences, information architecture, usability and usability testing and much more, so the student will clearly understand how to design with user focus.

### **LECTURE 2.1: User Experience**

⊕ *Understand what user experience and usability mean.*

In this lecture we discuss the meaning of user experience and usability. We emphasize the importance of understanding users and the process involved in designing experiences for them. We also discuss the lecture goals for this section.

### **LECTURE 2.2: User Expectations**

⊕ *Understand how expectations of users bias their perceptions.*

In this lecture we discuss how users' perceptions are biased by their expectations, which are in turn influenced by their past experiences, their present context, and their goals. We look at examples of how the meaning people make of a sense perception is prejudiced by their other senses and talk about other influences on context, such as internal and physical state, resulting from memories, attitudes, skills and personality. We then emphasize how important users' goals are for the way they look at a website and study the psychological phenomenon called "inattention blindness" which can cause users to miss things that are right in front of their eyes.

### **LECTURE 2.3: Goal Alignment**

⊕ *Learn to formulate principal website goals.*

In this lecture we discuss why the goals for which a website is/was set up must be aligned with the goals of its visitors and how to properly formulate principal website goals. We also talk about the importance of setting the right goals for a website.

### **LECTURE 2.4: Target Audience and SMART Goals**

⊕ *Learn to determine the target audience of your website and to set SMART goals.*

In this lecture we discuss the importance of designing for a specific target audience and how to determine who is included in that target audience. We also discuss the importance of user research and which questions it serves to answer. Finally, we talk about how to set SMART goals for a website and how these can be used to formulate website specifications.

### **LECTURE 2.5: User Research**

⊕ *Learn to shift your focus to a user-centered perspective through user research.*

In this lecture we talk about the true purpose of conducting user research, when to do it and its three phases, who may not be a suitable candidate to include as a participant and discuss when it may not be necessary to perform lengthy inquisitive user research before the start of a project. We then examine the contextual inquiry as an effective user research method and end the lecture with suggestions for those designers who conduct their own user research.

### **LECTURE 2.6: User Maps**

⊕ *Learn to visualize results of user research methods to gain insights from them.*

As the more effective user research methods are qualitative in nature, we need ways to visualize their results to gain insights from them. In this lecture we discuss three commonly used techniques, affinity diagrams, empathy maps and user journey maps for consolidating and making users' stories accessible to analysis. We then touch upon scenarios and customer experience audits.

### **LECTURE 2.7: Personas**

⊕ *Learn to create personas for your website.*

In this lecture we discuss what a persona is, which pieces of information can be used to define one, the types of perspectives and the steps for creating a persona, and how she/he can be visualized using a layout. We also talk about how personas are used and how many you should create.

### **LECTURE 2.8: Motivations and the Hierarchy of Needs**

⊕ *Learn to set priorities by considering the motivations of your users.*

In this lecture we discuss how to motivate our website users and learn about Abraham Maslow's hierarchy of universal human needs. We then look at more specific motivations that seem to be prevalent in the internet and finally touch upon the five key levels in the hierarchy of needs in design theory.

### **LECTURE 2.9: Information Architecture**

⊕ *Learn to organize your content on the web and to visualize that organization.*

In this lecture we discuss ways of organizing our content on the web. We talk about site maps, user stories, information hierarchy and different content categorization methods. We then look at the three levels of visualizing a conceptual design: with a wireframe, a mockup and a prototype.

### **LECTURE 2.10: Overview of Website Elements**

⊕ *Review major elements of a website*

In this lecture we revise the major elements of a website. We look at the page framework, which includes the site navigation and the footer, discuss the function of images, some aspects of forms, the importance

of structuring content, and the roles different buttons play, including call-to-action buttons. We also talk about important concepts such as the fold and the axis of interaction. Finally, we review the card sorting technique that is often used by designers to get feedback on their layouts.

### **LECTURE 2.11: Designing with Data**

⊕ *Learn about getting statistical feedback from users about your website.*

In this lecture we discuss how to use website statistics to gain insights about users' response to our design. We then talk about additional ways of getting feedback, such as by having eye tracking studies conducted, recording heatmaps for clicks, mouse movements and scrolling, and logging users' search keywords. Finally, we review the A/B testing method.

### **LECTURE 2.12: Accessibility Issues**

⊕ *Learn how to design for accessibility.*

In this lecture we discuss what accessibility means, why it is very important to create accessible websites, which standards govern accessibility issues, how people with disabilities navigate websites, and what simple measures can be taken to accommodate many of the devices that people with disabilities utilize. We revise a list of simple rules that designers should keep in mind when designing for accessibility. Finally, we touch upon testing for accessibility and the areas where accessibility and search engine optimization overlap.

### **LECTURE 2.13: Extrinsic Design Constraints**

⊕ *Learn to incorporate extrinsic constraints into the design process.*

In this lecture we discuss extrinsic design constraints that have an impact on the design process, such as the 80/20 rule, the cost-benefit principle, the performance-preference relationship, the baby duck syndrome, the role of "fashionable designs", "design patterns" and the role of conventions. We then talk about the discoverability of a website, search engine optimization, and the importance of content and link sharing. Finally, we look at hardware and software constraints, how responsiveness of the design must accommodate usability on many different platforms, and how to properly scale the design.

### **LECTURE 2.14: Assessment of the User Experience**

⊕ *Learn how to improve the usability of your website.*

In this lecture, our concern is to improve the usability of a website. We start the discussion by looking at common strategies for incorporating forgiveness in our designs. We then think about questions that we should ask ourselves regarding the usability of our designs; conclude however that these must be revealed by usability testing. Finally, we discuss topics related with conducting usability testing such as how many participants should be involved, what metric should be used, and which additional issues should be considered for testing mobile usability.

### **LECTURE 2.15: Section Summary**

⊕ *Revise major aspects of the web design process.*

In this lecture we look back at the learning of this section in a structured way. We particularly emphasize the steps we take in designing in a systematic manner.

### **SECTION 3: COGNITIVE PSYCHOLOGY FOR WEB DESIGN**

⊙ *Understand the implications of cognitive processes for web design.*

Our aim in this section is to understand the basics of human cognitive psychology as it relates to web design. We start out by considering how we can model how the human brain works and look at different aspects of the human mind from a functional perspective. We discuss the characteristics and limitations of human attention, memory and perception and how we should take these into consideration when designing user interfaces. We then look at language, reading, and learning abilities of humans in a similar fashion. In considering human emotions we learn about visceral, behavioral and reflective design.

### **LECTURE 3.1: Introduction to Cognitive Psychology**

⊕ *Understand which basic terms, issues and concepts cognitive psychology deals with.*

In this lecture we learn what cognitive psychology is about, define some of the more important processes that it deals with, and introduce two theories that try to model the functions of the brain. We also discuss the lecture goals for this section.

### **LECTURE 3.2: How the Brain Works**

⊕ *Understand why human beings are irrational, biased, and unconsciously conditioned.*

In this lecture we look at the major differences between the two currently prevalent theories, the Information Processing Theory and the Parallel Distributed Processing Theory, that try to explain how the human mind works. We then briefly discuss how the constructivist approach which emerges out of the latter theory contrasts with behaviorism.

### **LECTURE 3.3: The Triune Brain Model**

⊕ *Understand the implications of the triune nature of the brain.*

⊕ *Understand the implications of the dualistic nature of the human cognitive system.*

In this lecture we look at two models concerning the functional structure of the brain: The triune brain model and the left - right hemisphere duality. When thinking about our designs, these models can enable us to draw broad based conclusions regarding key aspects of human behavior.

### **LECTURE 3.4: Attention**

⊕ *Understand the importance of guiding users' attention.*



In this lecture we discover attention as the brain's main mechanism for prioritizing what it should process at any moment and discuss the importance of simplifying displays and guiding users' attention to reduce the effect of information overload.

### **LECTURE 3.5: Short-Term Memory**

⊕ *Learn to take limitations of human short-term memory into consideration in user interface design.*

In this lecture, we first discuss how the three levels of human memory relate to one another and then concentrate on the characteristics of short-term memory, especially emphasizing its limitations and how these should be taken into consideration when designing user interfaces.

### **LECTURE 3.6: Long-Term Memory**

⊕ *Learn to take limitations of human long-term memory into consideration in user interface design.*

In this lecture we discuss the characteristics of long-term memory, emphasize its limitations and how these should be taken into consideration when designing user interfaces. We then examine how the two manifestations of remembering, recognition and recall, differ from one another.

### **LECTURE 3.7: Recognition versus Recall**

⊕ *Learn to design for recognition over recall, while at the same time making both easier for users.*

In this lecture we discuss the implications of the differences between recognition and recall and how to design taking these into consideration. We also talk about such concepts as the "picture superiority effect", the "mere exposure effect", the "von Restorff effect", the "paradox of choice", as well as the importance of taxonomies, visibility of functions, making user authentication methods easier, and more.

### **LECTURE 3.8: Visual Perception**

⊕ *Learn to take qualities of human visual processing into account when designing user interfaces.*

In this lecture we talk about the characteristics of human visual processing and how these affect our perception of the aesthetics of designs. We then learn about the differences between central vision and peripheral vision and what the consequences of these differences are for the design of the background of a display.

### **LECTURE 3.9: Visual Perception (Continued)**

⊕ *Learn to take human color vision capabilities into account when designing user interfaces.*

⊕ *Understand the relationship between stimuli and reaction time as relates to visual search.*

In this lecture we talk about two important issues that relate to human visual processing: color vision and visual search. We also learnt about Hick's Law and how to take limitations of our visual perception into consideration when designing user interfaces.

### **LECTURE 3.10: Language and Reading**

⊕ *Learn to assist users in reading textual content.*

In this lecture we discuss the role that language plays in the human cognitive system, the two different types of reading, which characteristics an easy to read document should possess, the role that text-alignment plays for presentation of textual content and which general features of typography we should watch out for. We also talk about the consequences of our left-to-right reading habit in Western Cultures.

### **LECTURE 3.11: Learning**

⊕ *Learn to support users so their interactions with a website become automatic quickly.*

In this lecture we discuss how web designers can support their users so their interactions with their website become automatic quickly. We also discuss the more general human computer interaction issue called the “gulf of execution” and what can be done to help to reduce it.

### **LECTURE 3.12: Emotions**

⊕ *Understand how emotional reactions emerge and how they influence our decision-making processes.*

In this lecture we talk about the duality between our affective and cognitive systems, about feelings, moods and emotional responses and how specific factors can significantly impact these, about the “Aesthetic-Usability Effect”, and about the six phases that influence how we judge our emotional experience with a product. Finally, we learn about Robert Plutchik’s psycho-evolutionary classification for general emotional responses and his “Wheel of Emotion”.

### **LECTURE 3.13: Emotions (Continued)**

⊕ *Learn the basic principles of visceral, behavioral and reflective design.*

In this lecture we discuss Donald Norman’s three levels of emotional design. And we also touch upon the question how gestures that we use in real-life social interactions can be translated into the digital world.

### **LECTURE 3.14: Cognitive Biases**

⊕ *Learn the meanings of some of the important cognitive biases.*

In this lecture we go over the meanings of some of the important cognitive biases that are relevant for the topics covered in the second and this third sections of the course.

### **LECTURE 3.15: Section Summary**

⊕ *Revise major issues in cognitive psychology for web design.*

In this lecture we look back at the learning of this section in a structured way.

## **SECTION 4: GESTALT PSYCHOLOGY FOR WEB DESIGN**

⊙ *Learn to use gestalt principles for creating better websites.*

Our aim in this section is to learn to use gestalt principles for creating websites that account for perceptual biases of users, that are more appealing to their subconscious mind and easier for them to navigate. We learn about four gestalt concepts and twelve gestalt principles and study how they can be applied in web design.

### **LECTURE 4.1: Introduction to Gestalt Psychology**

⊕ *Understand the basic assumptions of and the objectives for learning gestalt psychology.*

This lecture is a brief introduction into gestalt psychology, which tries to describe the processes involved in human visual perception. We discuss its meaning, its origins, its basic assumptions, how understanding its principles can help web designers, and the different ways its principles can be utilized.

### **LECTURE 4.2: Emergence and Meaningfulness**

⊕ *Learn how to use the gestalt principle “meaningfulness” in web design.*

In this lecture we study the gestalt concept “emergence” and the gestalt principle “meaningfulness” and learn how to apply that principle in web design.

### **LECTURE 4.3: Conciseness and Invariance**

⊕ *Learn how to use the gestalt principle “conciseness” in web design.*

In this lecture we study the gestalt concept “invariance” and the gestalt principle “conciseness” and learn how to apply that principle in web design.

### **LECTURE 4.4: Symmetry**

⊕ *Learn how to use the gestalt principle “symmetry” in web design.*

In this lecture we study the gestalt principle “symmetry” and learn how to apply it in web design.

### **LECTURE 4.5: Multistability and Figure / Ground Distinction**

⊕ *Learn how to use the gestalt principle “figure/ground distinction” in web design.*

In this lecture we study the gestalt concept “multistability” and the gestalt principle “figure/ground distinction” and learn how to apply that principle in web design.

### **LECTURE 4.6: Reification and Closure**

⊕ *Learn how to use the gestalt principle “closure” in web design.*

In this lecture we study the gestalt concept “reification” and the gestalt principle “closure” and learn how to apply that principle in web design.

### **LECTURE 4.7: Continuity**

⊕ *Learn how to use the gestalt principle “continuity” in web design.*

In this lecture we study the gestalt principle “continuity” and learn how to apply it in web design.

### **LECTURE 4.8: Grouping by Proximity**

⊕ *Learn how to use the gestalt principle “proximity” in web design.*

In this lecture we study the gestalt principle “proximity” and learn how to apply it in web design.

### **LECTURE 4.9: Grouping by Similarity**

⊕ *Learn how to use the gestalt principle “similarity” in web design.*

In this lecture we study the gestalt principle “similarity” and learn how to apply it in web design.

### **LECTURE 4.10: Grouping by Connectedness**

⊕ *Learn how to use the gestalt principle “connectedness” in web design.*

In this lecture we study the gestalt principle “connectedness” and learn how to apply it in web design.

### **LECTURE 4.11: Grouping by Common Region**

⊕ *Learn how to use the gestalt principle “common region” in web design.*

In this lecture we study the gestalt principle “common region” and learn how to apply it in web design.

### **LECTURE 4.12: Grouping by Common Fate**

⊕ *Learn how to use the gestalt principle “common fate” in web design.*

In this lecture we study the gestalt principle “common fate” and learn how to apply it in web design.

### **LECTURE 4.13: Grouping by Synchrony**

⊕ *Learn how to use the gestalt principle “synchrony” in web design.*

In this lecture we study the gestalt principle “synchrony” and learn how to apply it in web design.

### **LECTURE 4.14: 3D Vision**

⊕ *Learn how to use the monocular cues for depth perception in web design.*

In this lecture we learn about the heuristics that the brain uses in addition to the perceptual biases explained by the gestalt theory to capture the 3D content in 2D images.

### **LECTURE 4.15: Section Summary**

⊕ *Revise the concepts and principles studied, in the overall framework of gestalt theory.*

In this lecture we look back at the gestalt concepts and principles as they interrelate within the overall framework of human visual perception.

## **SECTION 5: VISUAL DESIGN PRINCIPLES**

⊕ *Learn to use visual design principles for creating better websites.*

We pursue two goals in this section: To learn to arrange the psychological forces that are inherent in our compositions to build visual hierarchies, so that we can guide our users through our designs and to learn to balance the mentioned psychological forces such that the designs we create are aesthetically pleasing.

### **LECTURE 5.1: Introduction**

⊕ *Understand the objectives for studying visual design principles.*

This lecture is a brief introduction into visual design, which is about communicating information in a perceptually pleasing and consistently structured manner. We discuss its general purpose, its connection to psychology and our main objectives for studying it as part of psychology driven web design.

### **LECTURE 5.2: Unity, Variety and Simplicity in Design**

⊕ *Learn about the fundamental visual design concepts of unity, variety and simplicity.*

In this lecture we study the fundamental visual design concepts of unity, variety and simplicity and learn how they relate to the conception of aesthetically pleasing and well-structured web pages.

### **LECTURE 5.3: Consistency for Better Usability**

⊕ *Learn about the fundamental visual design concept of consistency.*

In this lecture we study the fundamental visual design concept of consistency, discuss how it contributes to better usability, and how it relates to simplicity and unity, and learn about the different types of consistency that we distinguish between.

### **LECTURE 5.4: Similarity and Contrast**

⊕ *Learn about the fundamental visual design concepts of similarity and contrast.*

In this lecture we talk about similarity and contrast between web design elements, when to apply one or the other of these principles, and why it is the superficial characteristics of design elements that let their perceptual relationships emerge.

### **LECTURE 5.5: Visual Weight**

⊕ *Learn how to use visual weight in visual design.*

In this lecture we learn about visual weights of design elements and study the guidelines that people commonly, if usually subconsciously, use to assign visual weight values to particular user interface elements.

### **LECTURE 5.6: Visual Direction**

⊕ *Learn how to use visual direction in visual design.*

In this lecture we learn about visual directions and study the guidelines that people commonly, if usually subconsciously, use to determine visual directions in compositions. We also talk about the structural skeleton of a canvas and we finally discuss how the dominant direction of a composition affects its overall perception.

### **LECTURE 5.7: Dominance and Focal Points**

⊕ *Learn how to use dominance and focal points in visual design.*

In this lecture we talk about dominance in design, discuss how to create different levels of dominance and thus a visual hierarchy, and learn how to identify the focal points and the dominant element of a composition.

### **LECTURE 5.8: Compositional Hierarchy, Flow and Rhythm**

⊕ *Learn how to apply compositional hierarchy, flow and rhythm in visual design.*

In this lecture we learn how compositional flow and rhythm are created and look briefly at the different types of rhythm that one encounters in web design.

### **LECTURE 5.9: Compositional Balance**

⊕ *Learn how to achieve compositional balance in web design.*

In this lecture we learn what compositional balance means, discuss how to achieve it, and talk about the different types of compositional balance and how they may affect people.

### **LECTURE 5.10: Whitespace as a Design Element**

⊕ *Learn how to use whitespace in web design properly.*

In this lecture we learn that whitespace is not to be regarded as passive background but is a design element. We discuss the different psychological effects that whitespace has on people. We examine the relationship between whitespace and some of the gestalt principles. And we also look at the relationship between whitespace and the design styles minimalism and horror vacui.

### **LECTURE 5.11: Aesthetic Proportions**

⊕ *Learn how to use aesthetic proportions for creating pleasing web pages.*

In this lecture we talk about the effects that proportions we choose for our design elements have on our users. We then study the golden ratio, the Fibonacci Sequence and the rule of thirds.

### **LECTURE 5.12: Natural Focal Points and Axes**

⊕ *Learn how to make use of natural focal points and axis to guide users' gaze instinctively.*

In this lecture we learn about natural focal points and axes, which emerge out of the structural network of perceptual forces that exist in every composition, even in an empty canvas, and how to use these to enhance the attractive force of our design elements.

### **LECTURE 5.13: Grid Systems**

⊕ *Learn how to use grids effectively in web design.*

In this lecture we learn why grid systems are useful for creating well-structured layouts that are simple and consistent and why those layouts generate a strong visual hierarchy.

### **LECTURE 5.14: Layout and Design Examples**

⊕ *Learn how to choose appropriate layouts for your web pages.*

In this lecture we look at 25 website examples, where a fitting layout has been chosen and a pleasing visual design has been created.

### **LECTURE 5.15: Section Summary**

⊕ *Revise the principles studied in the overall framework of visual web design.*

In this lecture we look back at the visual design principles studied in this section from the perspective of how they interconnect with one another.

## **SECTION 6: COLOR PSYCHOLOGY FOR WEB DESIGN**

⊙ *Learn to use color with greater psychological impact.*

Color psychology, which is the field of study of how color affects human behavior, has long been used by brands to convey specific feelings and messages to their markets. In this section, we want to learn to do the same in web design, which means that we have to understand how different colors impact people, so that we can select appropriate colors for using in our creations.

### **LECTURE 6.1: Introduction to Using Colors in Web Design**

⊕ *Understand the objectives for studying color psychology.*

In this lecture, we discuss the general purpose of studying color psychology and how understanding this topic helps us select appropriate colors when designing web pages.

### **LECTURE 6.2: Color Vision Revisited**

⊕ *Learn how color properties emerge and how they are modelled.*

In this lecture we extend our understanding of color vision from the physiological processes that occur in the eye to how the mind interprets color. We then learn how color properties emerge and how they are modelled.

### **LECTURE 6.3: Color Harmony**

⊕ *Learn how colors interact with one another to create a harmony.*

We discuss here color harmonies by looking at the six color schemes that are based on the color wheel and that are commonly applied by graphic designers. Our aim is to learn how colors interact with one another.

### **LECTURE 6.4: Introduction to Color Psychology**

⊕ *Learn about the mechanisms that simultaneously influence how colors affect us.*

In this lecture we look at the different mechanisms that simultaneously influence how colors affect us.

### **LECTURE 6.5: Red and its Tints and Shades**

⊕ *Learn about the psychology of red and pink.*

In this lecture we talk about the psychology of red, its shades and tints, including pink.

### **LECTURE 6.6: Yellow and Orange**

⊕ *Learn about the psychology of yellow and orange.*

In this lecture we talk about the psychology of yellow, gold, orange and their shades and tints.

### **LECTURE 6.7: Green and Brown**

⊕ *Learn about the psychology of green and brown.*

In this lecture we talk about the psychology of green, its shades and tints, including turquoise and teal, and also about the psychology of brown.

### **LECTURE 6.8: Blue and Purple**

⊕ *Learn about the psychology of blue and purple.*

In this lecture we talk about the psychology of blue, violet, purple, and their shades and tints, including lavender and magenta.

### **LECTURE 6.9: Light Neutrals**

⊕ *Learn about the psychology of white, silver and off-whites.*

In this lecture we talk about the psychology of white, silver and off-whites, including ivory, cream, tan and beige.



### **LECTURE 6.10: Dark Neutrals**

⊕ *Learn about the psychology of black and gray.*

In this lecture we talk about the psychology of black and gray.

### **LECTURE 6.11: Choosing the Right Colors**

⊕ *Learn which questions to consider when choosing a color scheme for a website.*

This lecture is all about choosing the right colors for a website, considering both usability and aesthetics. In particular, we talk about the questions that we should ask ourselves when deciding on a color scheme.

### **LECTURE 6.12: Using Colors in E-Commerce**

⊕ *Learn which additional questions to consider when designing an e-commerce website.*

In this lecture, we discuss some of the more specific issues of concern regarding color selection that we face, when designing an e-commerce website.

### **LECTURE 6.13: Website Examples**

⊕ *Learn from examples which color scheme is appropriate for which website.*

In this lecture we look at 35 website examples from the perspective of color psychology.

### **LECTURE 6.14: Color Blindness**

⊕ *Learn how to design for the needs of users with color vision deficiency.*

In this lecture, we talk about the different types of color vision deficiency, the needs of users who suffer from them, and how we can design taking those needs into consideration.

### **LECTURE 6.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.

## **SECTION 7: CONTENT DESIGNED FOR THE WEB**

⊙ *Learn to create content suitable for online consumption.*

People don't read web pages the way they read books or magazines. In addition, the context of consuming content on the web is different and websites are designed for interaction. We must therefore learn to create content that is suitable for online consumption and this is our aim in this section.

### **LECTURE 7.1: Introduction**

⊕ *Understand the section objectives.*

In this lecture, we discuss the general reasons why content creation for online consumption is different than it is for other media.

### **LECTURE 7.2: Distinctive Design**

⊕ *Learn to use principles of distinctive design for content creation.*

In this lecture, we look at the concept of distinctive design, what it means and what its main principles are. We also discuss specific topics that relate to achieving distinctive design, such as avoiding cognitive overload, proper use of calls-to-action, noise margins, whitespace, drawing users' attention based on content itself, creating contrast in text, and more.

### **LECTURE 7.3: Scanning versus Reading**

⊕ *Learn to appreciate the difference between scanning and reading web pages.*

We discuss here how users consume online content and why it's different from reading. We look in detail at the three different types of scanning people employ when they browse web pages and how features of textual content we create can help them achieve their goals with each. We then examine the differences between deep reading and scanning from the perspective of cognitive psychology.

### **LECTURE 7.4: Scanning Patterns**

⊕ *Learn to take advantage of users' natural scanning patterns.*

In this lecture, we look at the different gazing patterns that naturally emerge when users scan web pages. We study in particular the F-pattern and the four additional patterns identified by The Nielsen Norman Group.

### **LECTURE 7.5: Creating Scannable Compositions**

⊕ *Learn to apply a good strategy for creating scannable content.*

In this lecture, we talk about applying a good strategy for creating scannable content. To concepts that we will have discussed in earlier lectures we add progressive disclosure and proper alignment of content elements. We examine in particular the use of inline links, designing for browsing, searching and discoverability, and the proper use of the axis of interaction.

### **LECTURE 7.6: Writing for Scannability: Highlighting**

⊕ *Learn to highlight properly for achieving better scannable content.*

In this lecture, we talk about segmenting, organizing and highlighting content properly, so it is better scannable.

### **LECTURE 7.7: Writing for Scannability: Style**

⊕ *Learn to adapt your style when creating textual content, so it is better scannable.*

In this lecture, we talk about stylistic choices, how to write and what to avoid when creating textual content, so it is better scannable. We discuss in particular the inverted pyramid style of writing and the importance of simplifying.

### **LECTURE 7.8: Reading Comprehension**

⊕ *Learn to create textual content that is better legible and readable.*

This lecture is all about issues that relate to legibility and readability.

### **LECTURE 7.9: Creating Accurate Body Copy**

⊕ *Learn to improve textual presentation by paying attention to details.*

In this lecture, we talk about paying attention to details of textual presentation and the use of special characters. We also touch upon the issue of tone-of-voice and its four dimensions.

### **LECTURE 7.10: Writing for Deep Reading**

⊕ *Learn to use psychology for communicating messages better in prose.*

We start this lecture by looking at the determining factors that affect deep processing of information. We then discuss several important issues based on human psychology that influence how content is taken in by users, including the Rosetta Stone technique for communicating novel information, addressing all three centers of the brain with content, the self-reference effect, users' mental models, cognitive dissonance, the cliffhanger-effect, the Zeigarnik-Effect, the effect of positive or negative framing, ...

### **LECTURE 7.11: Storytelling as a Writing Style**

⊕ *Learn to improve your website writing by employing storytelling techniques.*

In this lecture, we will learn that storytelling can be a powerful tool for website writing, by looking at fundamental elements of stories, studying the "dramatic arc" as a method of effective storytelling and examining the "hero's story" as a template for creating impactful customer narratives.

### **LECTURE 7.12: Social Content and Content Curation**

⊕ *Learn to improve your content by contributions of others and by content of others.*

The topics of this lecture are creation of social content, co-creation of content and content curation.

### **LECTURE 7.13: Content Sharing**

⊕ *Learn to make your content easier to find and more worthy of sharing.*

In this lecture we discuss when and why people share content and also how to make content easier to find and more worthy of sharing.

### **LECTURE 7.14: Going Viral and Content Marketing**

⊕ *Learn how to extend the reach of your content.*

In this lecture, we talk about the nature and types of viral content, information seeking behavior, content marketing and the media used for that purpose, and briefly touch upon the issue of monetizing content.

### **LECTURE 7.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.

## **SECTION 8: VISUALS AND TYPOGRAPHY**

⊙ *Learn to use visuals and typography effectively and affectively.*

In this section, we learn to judge the purposefulness, appropriateness as well as psychological impact of, on one hand, many types of visuals that we use on our websites, including photographs, shapes, video, infographics and pictograms and on the other, typefaces that we choose to write textual content with.

### **LECTURE 8.1: Introduction**

⊕ *Understand the section objectives.*

In this lecture, we discuss the general reasons why it is important to critically evaluate the purposefulness, appropriateness as well as psychological impact of visuals and typography that we use on our web pages.

### **LECTURE 8.2: The Picture Superiority Effect**

⊕ *Learn why images are superior to verbal descriptions and when they are most impactful.*

In this lecture, we learn in detail why images are superior to verbal descriptions and when they are most impactful. We discuss the three hypotheses that together account for the “picture superiority effect”. We then talk about the lessons we can learn from this effect for designs we create. Near the end of the lecture, we confer about implications for design of the difference between foveal and peripheral vision and argue for choosing images that are concise rather than complex, based among other arguments on the “savannah preference”.

### **LECTURE 8.3: The Psychological Impact of Faces**

⊕ *Learn to use faces on website photographs effectively and affectively.*

In this lecture, we discuss how faces we see on website photographs affect us. We talk about the use of direct gaze, about emotional face expressions, about the baby-face-bias, the “most average facial appearance effect”, body and face symmetry, and threat features of an angry face.

### **LECTURE 8.4: Anthropomorphic Forms and the Attractiveness Bias**

⊕ *Learn to take advantage of users' natural preference for humanlike forms and patterns.*

In this lecture, we look at users' natural preference for humanlike forms and patterns and how different proportions affect them differently. Furthermore, we talk about the “uncanny valley” effect, the “face-ism ratio” and the “waist-to-hip ratio” of people on web images, the “attractiveness bias” and the related “halo effect”.

### **LECTURE 8.5: The Meanings of Common Shapes**

⊕ *Learn to use shapes effectively and affectively in web design.*

In this lecture, we talk about the meanings and psychological impact of common shapes such as circles, triangles, squares, rectangles, quadrilaterals, and regular polygons, and how these are used in web design.

### **LECTURE 8.6: The Use of Images in Web Design**

⊕ *Learn to select, stylize and optimize images for effective use on web pages.*

We start this lecture by talking once again about the importance of using visuals on web pages. We then tackle four specific topics: Choosing images; stylizing images; optimizing images for speed; and optimizing images for SEO.

### **LECTURE 8.7: Photography and Digital Arts**

⊕ *Learn to use photographic composition for effective integration of photos into web pages.*

In this lecture, we talk about photographic composition and how choosing a photograph that has good composition can help to create a unified design. We also discuss, briefly, how digital arts can be used to enhance the effectiveness of photographs on web pages.

### **LECTURE 8.8: Multimedia Content**

⊕ *Learn to use video materials more effectively on websites.*

This lecture is about general multimedia content. We take a brief look here at such issues as conveying emotions via video, video ads and when they are most effective, para-social bonds, movie psychology and how different genres affect people, and finally, making videos scannable.

### **LECTURE 8.9: Infographics and Modern Pictograms**

⊕ *Learn to use graphical depictions to convey your message more effectively on web pages.*

This lecture is about infographics as well as pictograms as the most important graphical elements that support them. We look briefly at informational, statistical, timeline, process, geographic, comparison, hierarchical, and list infographics. We then talk about propositional density, other key features of effective pictograms, and finish the lecture by identifying four different types of icons.

### **LECTURE 8.10: Iconic Representation**

⊕ *Learn to devise and use icons effectively in web design.*

In this lecture, we discuss the basic characteristics of icons and look at their use cases.

### **LECTURE 8.11: Designing Memorable Icons**

⊕ *Learn to conceptually design a custom icon for a website.*

In this lecture, we talk about the process of custom designing an icon. We look in particular at determining the icon size, the ideation phase to determine the main traits of the icon and finding inspiration for what we want to illustrate. We then briefly revise ten icon styles that have established themselves over the last four decades.

### **LECTURE 8.12: Introduction to Typography**

⊕ *Understand basic typographic terms, classes of typefaces and features of fonts.*

This lecture is a brief and general introduction into typography, where we go through the definitions of terms relating to typefaces and their anatomy, the four main classes of typefaces and their main categories, looking at examples in each and comparing the look and feel of these. We then confer about font weights, font sizes, line heights, x-heights, character spacing and line spacing.

### **LECTURE 8.13: Psychology of Typography**

⊕ *Understand the psychological impact of different fonts on users.*

In this lecture, we talk about the different associations that people unconsciously form when they are exposed to different fonts and derive general heuristics about which fonts to use to evoke specific emotional evaluations.

### **LECTURE 8.14: Choosing the Right Typeface**

⊕ *Learn to select effective and affective fonts for your web pages.*

This lecture is all about the process of selecting the right typefaces to devise your content with.

### **LECTURE 8.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.

## **SECTION 9: THE INDIVIDUAL AND INDIVIDUATION**

⊙ *Learn to account for differences between individuals in web design.*

Different users react differently to designs we create. We need to understand the subtle details related to specific user groups, even individuals, to fulfill the expectation that services we offer on the web will

be relevant to each and every one of them. Especially websites with a diverse set of users must cater to their target audiences with designs that resonate differently with each, which means that we have to learn to create personalized experiences for all our users. In this section, we study the fundamentals of how we can do that.

### **LECTURE 9.1: Introduction**

⊕ *Understand the section objectives.*

We begin this lecture looking at two variables, familiarity and uniqueness, that influence the commercial success of a design. We talk about the “most advanced yet acceptable” principle and the “zombie browsing effect” and then about geographic, demographic, psychographic, and behavioral segmentation of a target audience, emphasizing the importance of designing for differences between individuals.

### **LECTURE 9.2: Distinctiveness of the User**

⊕ *Learn to tap on users’ memories, self-stories and traits in web design.*

In this lecture, we learn about the exemplar theory and the influence of users’ specific memories on their decision-making behavior and social interactions. We also talk about users’ self-stories, the “fresh start effect” and the significance of ages that end in a “9”.

### **LECTURE 9.3: Gender Differences**

⊕ *Learn when and how to account for gender differences in web design.*

In this lecture, we discuss when it would be necessary to account for gender differences in web design. We also talk about the “hunter-nurturer fixation”, the different behavior patterns that men and women exhibit when making a decision under stress, and the different ways that men and women react to facial expressions and body language.

### **LECTURE 9.4: Generational Differences**

⊕ *Learn when and how to account for generational differences in web design.*

In this lecture, we first look at the significance of age in people’s lives and how it affects the way they interact with technology. We then talk about generations and mention the most important characteristics that the last five generations exhibited.

### **LECTURE 9.5: Cultural Differences**

⊕ *Learn when and how to account for cultural differences in web design.*

In this lecture, we talk about the way culture affects users’ perception of a website, the use of avatars, mirroring the characteristics of the target audience, the difference between the way people from the West and the East view images, and speak about cultural dimensions and models. Finally, we look at the dimensions of the Trompenaars Hampden-Turner Model of culture in some further detail.

### **LECTURE 9.6: Personality Types**

⊕ *Learn about the Myers–Briggs Personality Types and the Big Five Personality Traits.*

In this lecture, we look at the “Myers–Briggs Type Indicators”, mention the most significant characteristics of each of the 16 personality types according to this model, speak of the “Big Five Personality Traits”, and finally discuss briefly how to use personality types in web design.

### **LECTURE 9.7: Psychographic Segmentation**

⊕ *Learn how to segment the target audience based on the VALS psychographics framework.*

In this lecture, we talk about segmentation of the target audience, psychographics as a method of segmentation, and the VALS Framework as one way of performing psychographic segmentation. We then talk about the basic characteristics of people in the eight VALS segments.

### **LECTURE 9.8: Customization, Personalization, Individuation**

⊕ *Understand the difference between customization, personalization and individuation.*

This lecture is about customization, personalization, and individuation, where we look at the differences between these methods, as well as the upsides and downsides of each.

### **LECTURE 9.9: Customization and Personalization Best Practices**

⊕ *Learn about best practices for customization and personalization of websites.*

In this lecture we go through the customization and personalization best practices based on guidelines published by the Nielsen Norman Group.

### **LECTURE 9.10: Individuation in E-Commerce**

⊕ *Learn to employ individuation in e-commerce.*

In this lecture we look at the use cases and examples of individuation in e-commerce.

### **LECTURE 9.11: Adapting to Devices**

⊕ *Learn to adapt to different screen sizes and use contexts of different devices.*

In the first part of this lecture we study the difference between responsive and adaptive design. In the second part, we look at the differences between the design contexts of laptops / desktops, tablets and smartphones.

### **LECTURE 9.12: Behavioral Conditioning**

⊕ *Learn about the basics of behavioral conditioning.*

In this lecture, we talk about the effect of priming, the power of language, operant conditioning and the concept of stickiness of slogans.



### **LECTURE 9.13: Behavior of Individuals in Crowds**

⊕ *Learn to design for group decision making.*

In this lecture, we talk about the behavior of individuals in crowds. We look at the phenomenon known as the wisdom of the crowd and ask when a crowd is wise. Thinking about group decisions, we ask why certain group members dominate discussions and also why other members are led by them. We study the “Dunning-Kruger effect”, groupthink, the “black sheep effect”, the “bandwagon effect”, group conformity, implications of the Asch Test, and the “bystander effect”.

### **LECTURE 9.14: Global Audiences and Stereotyping**

⊕ *Learn to set aside ethnocentrism, stereotypes and prejudices when designing.*

In this lecture, we briefly look at ethnocentrism, stereotypes, and prejudices; why they arise and how they can be set aside. We do this to mentally prepare ourselves for designing for global audiences.

### **LECTURE 9.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.

## **SECTION 10: PSYCHOLOGY OF INTERACTIONS**

⊙ *Learn to design effective web user interactions.*

In this section, we look at issues that relate to interaction design and discuss the challenges involved therein, human time requirements and responsiveness of designs, conceptual models in interactions, Fitts’ Law and usability of controls, designing effective call-to-action buttons, designing effective forms, anticipating users’ mistakes and error handling, gamification, real-time technology, chatbots, mobile user interactions and much more.

### **LECTURE 10.1: Introduction**

⊕ *Understand the section objectives.*

In this lecture, we look from a general perspective at what interaction design concerns itself with.

### **LECTURE 10.2: Interaction Design Challenges**

⊕ *Learn to reduce the performance load and increase the responsiveness of systems.*

In this lecture, we talk about the allocation of tasks between computers and users; the two types of performance loads and how to reduce them; multi-tasking loads; visibility of controls; and characteristics of responsive systems. We also revisit Hick’s Law from the perspective of complex tasks.

### **LECTURE 10.3: Human Time Requirements**

⊕ *Learn about the different time requirements of human beings.*

In this lecture, we discuss the different time requirements of human beings and go through some of the many perceptual and cognitive time constants that affect human-computer interactions.

### **LECTURE 10.4: Designing for Human Time Requirements**

⊕ *Understand how fast interactive systems must react to user actions.*

Based on the human time requirements that we discussed in the previous lecture, in this lecture, we look at how fast interactive systems must react to user actions to accommodate these.

### **LECTURE 10.5: Conceptual Models in Interactions**

⊕ *Learn to design to facilitate users the formation of accurate conceptual models.*

In this lecture, we talk about users' conceptual models, how they are formed and why they must each conform to the design model to be meaningful. We then learn about levels of control, mimicry as a design method, its different types, and the shaping technique used to teach complex behavior.

### **LECTURE 10.6: Fitts' Law and Usability of Controls**

⊕ *Learn to position and dimension controls in a way to improve usability on different devices.*

In this lecture, we talk about Fitts' Law and its implications for positioning and sizes of controls on web pages. We also learn about dimensioning objects on the display in terms of absolute measurements on different types of devices based on the typical viewing distances of these. We then move on to confer about how people interact with their smartphones and how we can use this knowledge to design better user interfaces for mobile devices. Finally, we discuss when dynamic and animated UI elements can help to improve the usability of websites.

### **LECTURE 10.7: Designing Effective Call-to-Action Buttons**

⊕ *Learn to design effective call-to-action buttons.*

In this lecture, we discuss what a call-to-action (CTA) is, which visual features an effective CTA button should possess, where it should be positioned, and how the message on a CTA button, or more generally a call-to-action should be formulated.

### **LECTURE 10.8: Designing Effective Forms**

⊕ *Learn to design effective web forms.*

This lecture is about creating effective web forms. We discuss the general principles that should guide us in designing forms, the principles of good form organization, getting users to successfully complete forms, creating proper form labels, designing proper input fields, designing effective actions on forms, and inline form validation.

### **LECTURE 10.9: Anticipating Users' Mistakes and Error Handling**

⊕ *Learn to construct proper error handling for anticipated user errors.*

In this lecture, we learn to design anticipating that users will make mistakes. We talk about guidelines for proper form error handling and writing proper error messages. We also discuss the types of errors that users usually make, the Morrell taxonomy for classifying errors, the Yerkes-Dodson Law for considering physiological or mental arousal levels of users in their interactions with websites and the implications of these for design.

### **LECTURE 10.10: The Philosophy of Gamification**

⊕ *Understand the nature of games and the use of gamification in web design.*

In this lecture, we discuss what gamification is, what its purpose is, and how it differs from gaming. We then look at some of the aspects of games that make them different from real life activities and at some of the aspects of games that make them fun.

### **LECTURE 10.11: Designing for Players**

⊕ *Understand the concept of player-centered design.*

In this lecture, we study the concept of player-centered design as gamification must transform users to players. We talk about the relationship between gender, age and education level of players and their gamification needs; the Bartle Test of Psychology, which breaks up the way people play games into four personality types; the intrinsic and extrinsic motivation factors of players; the Fogg Behavior Model in psychology, which seeks to explain the relationship between motivation, ability and triggers of an action; and the four types of fun involved in gamification.

### **LECTURE 10.12: Mechanics of Gamification**

⊕ *Learn about the basics of gamification mechanics.*

In this lecture, we talk about some of the more important gamification mechanics such as collecting points and badges, participating on leaderboards and in quests etc. We also discuss such related issues as gamified appearance of the design; creating roles for users; giving users the tools for customizing their experiences; providing opportunities for approval and validation, for reviewing things, voting on things, social sharing, content co-creation and other types of community collaboration; providing ways for users to find others and be found by them and to socially connect with them; providing opportunities for people to answer questions and teach others, to collect things, and to gift these to others; etc.

### **LECTURE 10.13: Real Time Technology and Chatbots**

⊕ *Understand the psychological impact of real time technology and chatbot interactions.*

This lecture is about real time technology and the psychology of interacting with chatbots. We discuss in particular the importance of real time notifications and instant feedback, geo-location tracking, availability tracking, the psychology of synchronous collaboration, anthropomorphism and the difference between live chat support and chatbot assistance.

### **LECTURE 10.14: Mobile User Interactions**

⊕ *Learn to design for mobile environments.*

This lecture is all about designing for mobile environments: mobile web design as well as mobile app design. We talk in particular about what characterizes mobile use, what design for mobile use must take into consideration, what not to do when designing mobile apps, and about the “one thumb, one eyeball test” and we also discuss some suggestions for designing for mobile use, for better mobile app usability, and for better usability of forms on mobile apps.

### **LECTURE 10.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.

## **SECTION 11: PSYCHOLOGY OF E-COMMERCE**

⊙ *Learn to design effective and affective e-commerce websites.*

Designing effective e-commerce websites is not trivial. Creating online shopping experiences that can take the power and principles of psychology into account, so that a combination of affective descriptions, salient images and multimedia yield the kind of impact that interactions with real objects can, requires mastery of psychology driven web design. Often, factoring in idiosyncrasies of human psychology is the only sure way to success in e-commerce.

In this section, we look at the conjunction of design, marketing and psychology for creating effective and affective websites. We discuss, among many other things, the online sales cycle; using the triune brain model in e-commerce; the psychology of trust; the psychology of choice; the psychology of decision making; the price and quality perception; the psychology of scarcity and urgency; the psychology of reciprocity and rewards; using the inconsistency of the self; storytelling in e-commerce; social validation; designing effective testimonial pages; ...

### **LECTURE 11.1: Introduction**

⊕ *Understand the section objectives.*

In this lecture, we look from a general perspective at people’s shopping habits; at the difference between online and in-store shopping; at webrooming, showrooming and omnichannel experiences; and at the anticipation versus instant gratification relationship.

### **LECTURE 11.2: The Online Sales Cycle**

⊕ *Understand the different phases of the online sales cycle.*

This lecture is about the online sales cycle and the difference between customer acquisition and customer retention. We also talk about driving traffic to your website; why repeat customers are more

profitable; how you might improve your retention rate of existing customers; what you should do to use existing customers to acquire new ones; and about the importance of the reputational capital of your business.

### **LECTURE 11.3: Using the Triune Brain Model in E-Commerce**

⊕ *Learn to address all three parts of the brain for facilitating an online purchasing decision.*

In this lecture, we look at the consequences of the triune nature of the brain for e-commerce. We discuss, in particular, the role that the instinctive, emotional and rational aspects of the brain play in arriving at a purchasing decision and how to address each for achieving a successful sale. We also talk about cost-benefit analysis, post purchase rationalization, and satisficing.

### **LECTURE 11.4: Psychology of Trust**

⊕ *Learn to gain the trust of customers for facilitating an online purchasing decision.*

The first hurdle to overcome in e-commerce is to gain the trust of the user. Without trust, everything else is irrelevant. In this lecture, we talk about persuading our users that we are like them; building rapport with them; privacy and data security issues and reducing their worries concerning risks of online shopping; the use of terms of sale and service; supporting users with good after-sales service; encouraging them to contact us with their questions; the importance of offering of a refund on goods and services; the role of the company logo; and improving our reputational capital.

### **LECTURE 11.5: Psychology of Choice**

⊕ *Learn to manage customers' options for facilitating a purchasing decision.*

In this lecture, we talk about the psychology of choice, why we have the inclination to offer a lot of choice but why we should refrain from doing that. We talk in particular about the reactance bias; choice paralysis; decision fatigue; the order effect; the serial position effect; the primacy and recency effects and how different forms of presentation and the context affect these.

### **LECTURE 11.6: Psychology of Decision Making**

⊕ *Learn to influence customers' decision-making processes in e-commerce.*

In this lecture we basically discuss four issues: Why it is important to reinforce the decisions that users have already made; the effect of rational versus emotional decision-making style on the outcome; the relationship between certainty, elapsed time and the amount of evidence for a decision; and the effect that users' moods have on their decisions.

### **LECTURE 11.7: Price and Quality Perception**

⊕ *Learn to influence customers' price-quality perception in e-commerce.*

We talk here about the correlation between price and perception of quality of products and services; pricing structures and price comparisons; the Veblen effect; anchoring on numbers; the significance of prices themselves for value perception; the Weber-Fechner Law of Pricing; discounts and bonuses; add-

ons and bundles; how to use people’s loss aversion; and the importance of correct phrasing in marketing and sales.

### **LECTURE 11.8: Psychology of Scarcity and Urgency**

⊕ *Learn to employ scarcity and urgency tactics for increasing online sales.*

In this lecture we look at how scarcity and urgency can be used in online marketing to invoke anxiety and leverage the fear of a shortage in order to increase sales. We identify five main tactics that are commonly employed and discuss in some detail how these are applied.

### **LECTURE 11.9: Psychology of Reciprocity and Rewards**

⊕ *Learn to use reciprocity and rewards mechanisms for increasing online sales.*

In this lecture, we first talk about the use of reciprocity in e-commerce, which means that your customers will be more likely to do something for you after you have done something for them; and then we talk about the use of rewards to incentivize customers to exhibit a desired behavior. We discuss in particular the “Ben Franklin Effect”; the difference between a reciprocity-driven versus reward-driven approach; contingent rewards; implications of B.F. Skinner’s research into reinforcement schedules; and the variable reward bias.

### **LECTURE 11.10: Using the Inconsistency of the Self**

⊕ *Learn to influence customers’ internal stories for making online sales.*

In this lecture, we talk about the “self”; users’ internal stories and how to change them; how to shift users’ internal dialogues from negative to positive; the foot-in-the-door effect; the door-in-the-face effect; the power of concessions; and the methods of inducing cognitive dissonance and how these can be harnessed to make sales.

### **LECTURE 11.11: Storytelling in E-Commerce**

⊕ *Learn to use the power of stories and effective descriptions for increasing online sales.*

In this lecture, we discuss the value of storytelling in e-commerce. We talk in particular about the power of stories to establish sympathetic bonding; product and brand stories; the importance of writing descriptive text accompanied by visuals, as expressed by the method “show don’t tell”; and features of effective product descriptions.

### **LECTURE 11.12: Social Validation**

⊕ *Learn to use user-generated content and social validation for increasing online sales.*

In this lecture, we talk about the effect that opinions of others have on how we perceive brands and judge the usefulness of products and services. We talk in particular about mimetic desire; the power of strangers; testimonials, reviews and ratings, or more generally, user-generated content (UGC); the third-person effect; social proof; manipulation of social validation and credibility of UGC; an ideal review;

incentivizing clients to leave a review; user engagement; the usefulness of online forums; and public commitment.

**LECTURE 11.13: Effective Testimonial Pages**

⊕ *Learn to create effective testimonial pages.*

In this lecture we discuss how we can make testimonial pages more effective. We talk about the timing when to best ask for a review; why testimonials are powerful marketing tools; the features of good testimonials; and the most often used formats and mediums for displaying testimonials. After we look at a few example testimonial pages, we list suggestions for making testimonial pages more effective.

**LECTURE 11.14: Cognitive Biases**

⊕ *Learn the meanings of some of the important cognitive biases.*

In this lecture, we go over the meanings of some of the important cognitive biases that are relevant for the topics we cover here.

**LECTURE 11.15: Section Summary**

⊕ *Revise the topics studied in this section.*

In this lecture, we revise the topics of this section.