**Front-End UI/UX Mini Project**

**Project Submission Template**

University Website- Brixton Website

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**Course:** UI/UX Design Fundamentals

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**2. Abstract**

This project involves creating a comprehensive website for our fictional university called "Brixton University" using only HTML and CSS. The primary objective was to develop a professional, informative website that functions seamlessly across mobile devices, tablets, and desktop computers. I incorporated essential university sections including academic programs, admissions information, campus life, faculty details, and student resources. The website features a clean, academic design with blue and white colors to convey trust and professionalism. Creating this educational institution website presented unique challenges in organizing large amounts of information while maintaining user-friendly navigation without JavaScript functionality.

**3. Objectives**

* Develop a professional university website that reflects academic excellence and institutional credibility
* Create a fully responsive design compatible with all devices using exclusively HTML and CSS
* Implement semantic HTML5 elements learned during coursework
* Apply consistent CSS styling throughout all pages for visual coherence
* Ensure optimal mobile experience for prospective students accessing on smartphones
* Practice user-centered design principles for educational website usability
* Organize complex institutional information in an accessible, hierarchical structure

**4. Scope of the Project**

**What I included:**

* Pure front-end development with no backend requirements for this academic assignment
* No JavaScript functionality (not covered in current curriculum)
* Cross-platform compatibility for desktop, tablet, and mobile viewports
* Custom HTML and CSS code written independently
* Key university sections: Homepage, About University, Academic Programs, Admissions, Campus Life, Faculty Directory, Student Resources, and Contact Information

**What I didn't include:**

* Functional online application system (static forms only)
* Student portal login functionality
* Course registration capabilities
* Payment gateway integration
* Database connectivity for dynamic content
* Interactive campus maps or virtual tours

**5. Tools & Technologies Used**

| **Tool/Technology** | **Purpose and Application** |
| --- | --- |
| HTML5 | Semantic markup for content structure and accessibility |
| CSS3 | Visual styling, layouts, and responsive design implementation |
| VS Code | Primary development environment for code editing |
| Chrome DevTools | Cross-browser testing and responsive design debugging |
| Firefox Inspector | Additional browser compatibility testing |

**6. HTML Structure Overview**

I utilized semantic HTML5 elements including <header>, <nav>, <main>, <section>, <aside>, <article>, and <footer> to create a well-structured document hierarchy. The university website architecture includes:

* Prominent header featuring university branding and primary navigation
* Hero section highlighting university mission and key announcements
* Academic programs section organized by colleges and departments
* Admissions information with requirements and deadlines
* Campus life showcase featuring student activities and facilities
* Faculty and staff directory with departmental organization
* Student resources including library, career services, and support
* Comprehensive footer with quick links and contact details

The navigation system employs <ul> and <li> elements with anchor links providing smooth scrolling between page sections.

**7. CSS Styling Strategy**

All styling is contained within an external "styles.css" stylesheet to maintain code organization and separation of concerns. My CSS approach incorporates:

* **CSS Grid** for complex page layouts and academic program showcases
* **Flexbox** for component alignment and responsive navigation systems
* **Media queries** implementing mobile-first responsive design principles
* **CSS custom properties** for consistent color scheme and typography management
* **Transition effects** for enhanced user interaction feedback
* **Typography hierarchy** establishing clear information hierarchy for academic content
* Mobile-first methodology ensuring optimal smartphone experience before desktop enhancement

**8. Key Features**

| **Feature** | **Functionality Description** |
| --- | --- |
| Responsive grid system | Automatically adapts layout for optimal viewing on any device |
| Sticky navigation header | Navigation remains accessible during page scrolling |
| Academic program cards | Interactive display of degree programs with hover effects |
| Faculty profile showcase | Professional presentation of faculty members and credentials |
| Campus facility gallery | Visual tour of university buildings and amenities |
| Admissions timeline | Clear presentation of application deadlines and requirements |
| Student testimonials | Carousel-style display of student experiences |
| News and events section | Latest university announcements and upcoming activities |
| Professional color scheme | Blue and white theme conveying academic authority |

**9. Challenges Faced & Solutions**

| **Challenge Encountered** | **Resolution Strategy** |
| --- | --- |
| Information hierarchy complexity | Implemented card-based design system for content organization |
| Navigation overload on mobile devices | Created collapsible hamburger menu using pure CSS |
| Inconsistent typography across sections | Established comprehensive typography scale using rem units |
| Image optimization for various screen sizes | Utilized CSS object-fit and responsive image techniques |
| Academic content readability | Applied optimal line-height and contrast ratios for text |
| Form styling consistency | Created standardized form component styles |
| Cross-browser compatibility issues | Tested extensively and implemented fallback CSS properties |

**10. Outcome**

The final Brixton University website successfully meets all project requirements and exceeds initial expectations. The site presents a professional, trustworthy appearance that accurately represents a modern educational institution. All planned features are fully implemented and functional within the project constraints. The responsive design performs excellently across all device categories, providing prospective students with an optimal browsing experience regardless of their access method. The information architecture effectively guides users through complex university content while maintaining visual appeal and accessibility standards.

**11. Future Enhancements**

Potential improvements for continued development include:

**JavaScript Integration:**

* Interactive campus map with building locations and virtual tours
* Dynamic course catalog with filtering and search functionality
* Student testimonial carousel with automatic rotation
* Smooth scroll navigation with animated transitions
* Contact form validation and submission handling

**Advanced Features:**

* Online application portal with multi-step forms
* Student information system integration
* Event calendar with registration capabilities
* News blog with content management system
* Alumni networking directory

**Performance Optimization:**

* Image lazy loading for improved page load speeds
* CSS and HTML minification for reduced file sizes
* Progressive Web App capabilities for mobile users

**12. Sample Code**

**HTML - University Header Section**

<header class="university-header">

<nav class="main-navigation">

<div class="university-branding">

<img src="images/brixton-logo.png" alt="Brixton University Logo" class="logo">

<h1>Brixton University</h1>

</div>

<ul class="nav-links">

<li><a href="#home">Home</a></li>

<li><a href="#academics">Academics</a></li>

<li><a href="#admissions">Admissions</a></li>

<li><a href="#campus-life">Campus Life</a></li>

<li><a href="#faculty">Faculty</a></li>

<li><a href="#contact">Contact</a></li>

</ul>

<div class="hamburger-menu">

<span></span>

<span></span>

<span></span>

</div>

</nav>

<section class="hero-banner">

<div class="hero-content">

<h2>Excellence in Higher Education</h2>

<p>Discover your potential at Brixton University - where innovation meets tradition</p>

<button class="cta-button">Explore Programs</button>

</div>

</section>

</header>

**CSS - Academic Programs Grid Layout**

/\* University color scheme variables \*/

:root {

--primary-blue: #003366;

--secondary-blue: #0066CC;

--accent-gold: #FFD700;

--neutral-gray: #F8F9FA;

--text-dark: #333333;

--white: #FFFFFF;

}

.programs-container {

display: grid;

grid-template-columns: repeat(auto-fit, minmax(300px, 1fr));

gap: 30px;

padding: 60px 20px;

max-width: 1200px;

margin: 0 auto;

}

.program-card {

background: var(--white);

border-radius: 12px;

padding: 30px;

text-align: center;

box-shadow: 0 4px 12px rgba(0, 51, 102, 0.1);

transition: all 0.3s ease;

border-top: 4px solid var(--secondary-blue);

}

.program-card:hover {

transform: translateY(-8px);

box-shadow: 0 12px 24px rgba(0, 51, 102, 0.2);

border-top-color: var(--accent-gold);

}

.program-icon {

width: 80px;

height: 80px;

margin: 0 auto 20px;

background: var(--primary-blue);

border-radius: 50%;

display: flex;

align-items: center;

justify-content: center;

color: var(--white);

font-size: 2rem;

}

**13. Screenshots of Final Output**

**Desktop Homepage View**

*A screen shot of a computer

AI-generated content may be incorrect.*

**About Section Page**

A screenshot of a computer

AI-generated content may be incorrect.

**Courses Page**

*A screen shot of a computer

AI-generated content may be incorrect.*

**Events Page**

*A screen shot of a computer

AI-generated content may be incorrect.*

**Contact Us**

*A screenshot of a computer

AI-generated content may be incorrect.*

**14. Conclusion**

Developing the Brixton University website provided an invaluable learning experience in creating large-scale, information-rich web interfaces. This project significantly enhanced my understanding of responsive web design, semantic HTML structure, and advanced CSS layout techniques. Managing the complexity of university-level content while maintaining user-friendly navigation presented unique challenges that improved my problem-solving abilities.

The most rewarding aspect was successfully creating a professional website that could realistically represent an actual educational institution. The clean, academic design aesthetic combined with intuitive information architecture demonstrates the practical application of UI/UX principles in educational contexts. Working within HTML and CSS constraints pushed me to explore creative solutions for interactive elements typically handled by JavaScript.

This project reinforced the critical importance of mobile-first design, especially for educational websites where prospective students frequently access information via smartphones. The experience has prepared me well for more advanced web development projects and sparked genuine interest in educational technology applications.

**15. References**

* **L&T LMS:** https://learn.lntedutech.com/Landing/MyCourse - Primary course material and assignment guidelines
* **W3Schools:** Comprehensive reference for CSS Grid and Flexbox properties
* **MDN Web Docs:** Browser compatibility information and semantic HTML best practices
* **CSS-Tricks:** Advanced responsive design techniques and layout solutions
* **Google Fonts:** Typography selection for professional academic presentation
* **University Website Examples:** Research inspiration from Stanford, MIT, and Harvard websites