

Website Formal Testing Report

1. Testing Goals and Scope The objective of this testing was to evaluate the accessibility and usability of the homepage of **Pace.edu**, focusing on its compliance with the **WCAG 2.1 guidelines**. Testing aimed to:

- Identify accessibility barriers for users with disabilities.
- Evaluate usability with assistive technologies like screen readers.

The scope was limited to the homepage and its main navigation elements, ensuring the most critical interactions were evaluated.

2. Tools Used

- **Axe Accessibility Browser Extension:** For automated accessibility testing.
- **NVDA (NonVisual Desktop Access):** A screen reader for testing usability for visually impaired users.

3. Findings

3.1 Axe Testing Results

- **Critical Issues:**
 1. **Missing Alt Text for Images:** Some decorative and functional images lacked descriptive alt attributes.
 - **Recommendation:** Add appropriate alt attributes to all images, including descriptive text for functional images.
 2. **Low Contrast Ratio:** Certain text elements had insufficient contrast against their background.
 - **Recommendation:** Adjust text color or background to meet WCAG's minimum contrast ratio of 4.5:1.
- **Moderate Issues:**
 1. **Missing Form Labels:** Search bar input fields lacked proper labels for assistive technologies.
 - **Recommendation:** Add explicit form labels or use ARIA roles to ensure compatibility.
 2. **Non-Descriptive Links:** Links with generic text like "Click here" or "Learn more" were found.
 - **Recommendation:** Use descriptive text for all links to improve context and navigation.
- **Minor Issues:**
 1. **Redundant ARIA Roles:** Some ARIA roles were unnecessarily applied to elements that already had inherent HTML roles.
 - **Recommendation:** Remove redundant ARIA roles to simplify the code.

3.2 NVDA Testing Observations

- **Navigation:**
 - The navigation menu was accessible, but certain dropdown items were not announced correctly.
 - **Recommendation:** Use ARIA roles and aria-expanded attributes for dynamic menus.
- **Content Reading:**
 - The screen reader read the main content effectively, but it skipped over certain headings due to improper heading hierarchy.
 - **Recommendation:** Ensure headings follow a logical structure (e.g., H1 -> H2 -> H3).
- **Keyboard Navigation:**
 - The website was mostly keyboard accessible, but some focus indicators were missing or inconsistent.
 - **Recommendation:** Add visible focus styles to all interactive elements.

4. Recommendations To improve accessibility and usability, the following steps should be implemented:

1. Add alt text to all images.
2. Improve contrast ratios for text elements.
3. Provide proper labels for form inputs and enhance link descriptions.
4. Fix heading hierarchy to improve readability for screen readers.
5. Add ARIA roles and states to dynamic elements like dropdown menus.
6. Ensure all interactive elements have consistent and visible focus styles for keyboard navigation.

5. Conclusion The **Pace.edu homepage** demonstrates moderate compliance with accessibility standards but requires improvements to fully support users with disabilities. Addressing the critical and moderate issues identified in this report will enhance the website's usability and inclusivity, aligning it with WCAG 2.1 guidelines.