

Whiting School of Engineering

WEB REQUIREMENTS

Revision History

November 6, 2012 – First draft sent to working group for feedback.

November 12, 2012 – Web redesign working group feedback incorporated.

November 26, 2012 – Updated to reflect changes made in wireframes.

Introduction

This document outlines requirements for the new Whiting School of Engineering (WSE) website and the templates we will provide for use by WSE departments, centers and programs. Requirements are broken down into five categories: high-level business requirements, general user requirements, specific user requirements, functional requirements, and technical requirements. This requirements document will inform my drafting of the new information architecture (IA) and wireframes, likewise the IA and wireframing process will inform the requirements to some degree. This document will continue to evolve until we are ready to hand the requirements, information architecture and wireframes off to the selected contract web design and development firm.

High-Level Business Requirements

ID	FOCUS	REQUIREMENT
BR 1.	Recruitment	A primary function of WSE's web properties is student recruitment, especially undergraduate.
BR 2.	Information	Another important function of WSE's web properties is to communicate important information to students, faculty and staff, including policies, procedures and happenings on campus.
BR 3.	Awareness	WSE web properties should be a hub for news and events from around the school; they should tell the story of Johns Hopkins Engineering.
BR 4.	Scalability	To accommodate WSE's growth and change, allow scalability through proper architecture and extensibility of site planning.
BR 5.	Fundraising	The WSE website must support and facilitate the school's fundraising efforts and increase awareness of the impact that philanthropy.
BR 6.	Market Differentiators	Emphasize differentiators that distinguish Johns Hopkins Engineering from other engineering schools, and help shape a clear, positive and unique identity for WSE.
BR 7.	Community / Relationship Building	Meet the needs of community and media representatives, staying informed and informing others.
BR 8.	Social Media	Provide "like" and "share" options to connect with social media applications.
BR 9.	Global Branding	New look and feel should be consistent with KSAS and the rest of the Homewood campus, jhu.edu, the Hub, the Gazette, and other Johns Hopkins marketing vehicles.
BR 10.	Prioritized Space	Optimize space to support business goals and user needs;

BR 11.	Managed content	The new content management system and front-end website design must allow robust, timely and scientifically accurate content updates.
BR 12.	Templates	Design and layout templates must be comprehensive and flexible to extend to all WSE departments, centers and programs, and include web templates for departmental newsletters and HTML emails.
BR 13.	Global Branding	New look and feel should be consistent with KSAS and the rest of the Homewood campus, jhu.edu, the Hub, the Gazette, and other Johns Hopkins marketing vehicles.
BR. 14	Fresh Design	Refresh and energize the site's visual signal: Clean, modern website design with large, compelling photos and embedded multi-media content.
BR. 15	Workflow Management	PROPOSED work flow: content managers at the department can update, add and remove content in the CMS, with changes reviewed and pushed live by editors in the WSE Communications Office. This workflow would allow content managers complete control over their content, while ensuring consistency in style, tone, etc. across WSE web properties, as well as serving as a mechanism for internal communication between the departments/programs and centers and the WSE Communications Office.
BR. 16	Governance	Best practices for web governance should be followed. WSE Communications will provide web style and content guidelines to the departments. Through this project, WSE Communications seeks to develop relationships with web content managers around the school to allow for back-up support and business continuity

User Requirements: general

ID	FOCUS	REQUIREMENT
UR 1.	Information Architecture	Content on WSE and department/center/program websites should be logically organized and easy to navigate.
UR 2.	Navigation	Incorporate expected navigation conventions, including landing pages, sublevel navigation (vs page links). Do not use page-level links in lieu of sublevel navigation.
UR 3.	User Goals and Tasks	Support users' goals by providing information and navigation directly within the context of their task flows.
UR 4.	Consistency	Standardize naming conventions, terms, and tone of content across WSE web properties, as well as other relevant JHU web properties (jhu.edu, KSAS website, Admissions website, Homewood Student Affairs website, etc.)
UR 5.	Scanability	Use section headers, graphics/visual cues, and expandable content areas to make content scanable and easily digestible.
UR 6.	Calls to Action	Incorporate calls to action appropriately throughout the site. What do we want the user to do?
UR 7.	Findability in long lists	Incorporate usability best practices to help users find information in long lists (e.g. through the use of indexes, anchors or other means of navigation).
	Linking Strategy	Indicate hyperlinks through consistent styling and rollover states. (Do not use underlines unless indicating a hyperlink.); Rely on user-controls for page target; Develop cue to let users know they are leaving the website instead of opening in new window.

UR 8.	Indicate Interactions	Provide an indication of interaction capabilities through the use of rollovers.
UR 9.	Error messages	Provide succinct, appropriate error messages with clear instructions for what to do next.
UR 10.	Font Sizes	Font should be clear and readable. Accommodate Section 508 accessibility needs by allowing font sizes to be adjusted by the user.
UR 11.	Screen readers	Accommodate Section 508 accessibility needs by supporting appropriate screen reader tagging.
UR 12.	Accessible Design	Colors and contrast levels should be selected with accessibility in mind.

User Requirements: specific

ID	FOCUS	REQUIREMENT
UR 13.	About	The About page should be informational and engaging, with "by the numbers" information and a message from the dean/chair/director (text or video)
UR 14.	Announcements (D/C/P)	Bulletin-board type announcements with ability to segment by audience and flag for homepage.
UR 15.	Content Pages	General landing pages should include section sub-navigation, section title, page title, and should support formatted text, embedding of iframes, XML and JS, video embed, image embed and hyperlinking.
UR 16.	Current Students (D/C/P)	Requirements checklists, financial aid information and other forms should be made available electronically.
UR 17.	Fields of Study (WSE)	Fields of Study catalogue that shows areas of study, degree offerings and primary contact info at a glance; catalogue will include links to relevant KSAS offerings so a student interested in math, can compare WSE degree offerings with KSAS degree offerings to find his or her best fit.

UR 18.	Fields of Study (WSE)	<p>A landing page for each field of study will provide consistent information about all of our degree programs, with the following content areas: (1) Department Name; (2) one "ever-green" featured story (image, headline, text, link to keep reading) that will be updated by WSE each semester; (3) contact information (primary phone number, primary email, website, location on campus); (4) descriptive paragraph with expandable content area for "Five Reasons"; (5) "what can you do with your degree?" with snapshot paragraph and expandable content area for an alumni profile; (6) Related programs and centers paragraph; (7) prominent links to department website homepage, department undergraduate web page, department graduate webpage, and department faculty list; (7) one featured video; (8) "Jump to a Department" link for navigating through Fields of Study</p>
UR 19.	Fields of Study (WSE)	<p>Simplified landing pages should be developed for centers and programs.</p>
UR 20.	Giving (WSE)	<p>The WSE website should have a compelling Giving section, that tells users why they should give and what their money will support, with featured videos area (for Central Dev's Rising video series), rich content to highlight SEA volunteer stories with a CTA to recruit new volunteers, and prominent links to donate online and to gift officer contact information. Use http://giving.mit.edu/ for inspiration.</p>
UR 21.	Global Elements	<p>Global directory link with contact info for faculty and staff on the Homewood Campus, searchable by name, department, and keywords.</p>
UR 22.	Global Elements	<p>Social media buttons - Facebook, Twitter, Google+, LinkedIn, Futurity</p>
UR 23.	Global Elements	<p>Global primary navigation with drop down menus</p>
UR 24.	Global Elements	<p>Search box for site search</p>

UR 25.	Global Elements	WSE logo, with site department name on department/center/programs templates, links to homepage of website.
UR 26.	Global footer (WSE)	Level 1 - Quick Links, Directory, Communications Office, Webmaster, Policies, Emergency Info (links to jhu.edu); Level 2 - Links to jhu.edu, Medicine, KSAS, Peabody, Public Health, Carey School and Nursing.
UR 27.	Home Page	Big Picture scrolling content area - Image, title, caption, and link (up to five slides)
UR 28.	Home Page	News content area - three slots for featured news (similar to jhu.edu) with image, title, two lines of text and link to full story, with single, permanent link to "More WSE News »"
UR 29.	Landing Pages	Develop a general section landing page should be developed.
UR 30.	News & Events	WSE school event calendar with calendar and list view, ability to filter (by d/c/p, alumni, students, community, faculty & staff), and event detail pages for each entry and "add to calendar" functionality. D/C/Ps should be able to display only their events on their own websites.
UR 31.	News & Events	<i>Johns Hopkins Engineering</i> magazine and Department newsletters should be managed using the CMS, with content integrated into the WSE and department websites.

UR 32.	News & Events (WSE)	News & Events landing page will feature the following content: (1) news feed showing five or six most recent stories (thumbnail image, title, brief cutline and link to full story), with link to news archives; (2) Events calendar for WSE school with a link to main JHU events calendar; (3) Featured video (embedded) with header, short description, and a link to More Videos; (4) Featured content from <i>Johns Hopkins Engineering</i> magazine; (5) blog roll; (6) Twitter feed and social media buttons; (7) Links for media; and (8) Hub feed showing three most recent "science & technology" stories from The Hub.
UR 33.	People (D/C/P)	Faculty listings should be consistent across all WSE websites. Display name, title, degree, research areas, phone number, email, office location
UR 34.	People (D/C/P)	Faculty listings will link to landing pages for each faculty member, with a research tab that is auto-populated by Folio. (EX: http://econ.jhu.edu/directory/robert-a-moffitt/)
UR 35.	Promotional Elements	Spotlight boxes for each section to bring "rich content" to the forefront.
UR 36.	Recruitment	Website must include targeted content for prospective undergrads, including an overview of fields of study and degree offerings, including KSAS majors, with description of field/outcomes; "Five Reasons" content (market differentiators); and prominent links to "Apply" and "Visit Campus."
UR 37.	Recruitment	The site must reflect the Hopkins experience, with stories, testimonials, photos, videos to highlight student opportunities and to showcase the strong sense of community at Hopkins.
UR 36.	Recruitment	Beyond campus, sell Baltimore as a good place to live, study and work. Include links to information about the city on the admissions website, videos from the B'More student video series.

UR 37.	Recruitment	Links to “Apply” and “Visit Campus” should be prominently and consistently placed on appropriate pages.
UR 38.	Recruitment	Spotlight areas to highlight student research at the university.
UR 39.	Research	Communicate research opportunities for undergraduate and graduate students, as well as study abroad opportunities
UR 40.	Research	Research stories highlighting faculty, graduate and undergraduate research should be showcased throughout the site.

Functional Requirements

ID	FOCUS	REQUIREMENT
FR 1.	WSE page types	(1) Homepage, (2) About, (3) Academics, (4) Undergraduates, (4) Graduates, (5) Research, (6) News & Events, (7) Alumni, (8) Giving, (9) Detail page (generic), (10) Fields of Study shared library, (11) Directory main page, (12) Directory detail page, (13 & 14) Main calendar and calendar detail pages – use standard WP module with filtering options
FR 2.	WSE content types	(1) announcements, (2) featured content, (3) news items, (4) spotlight content, (5) videos, (6) fields of study, (7) events, (8) directory entries
FR 3.	Video Library	Include a searchable video library for end-users.
FR 4.	Taxonomy	Support and enforce the use of a consistent taxonomy / controlled vocabulary across all WSE web properties.
FR 5.	Search	Integrated search to search WSE web properties--including department/center/program sites and Folio--with organized display of results.
FR 6.	Rendering for mobile devices	Include the ability to render designated content on a mobile device.
FR 7.	Newsletters	Accommodate newsletter integration for departments.
FR 8.	Multimedia	Include ability to embed YouTube videos, as well as other multimedia types.
FR 9.	Media Library	Include a searchable media library for content managers/administrators.
FR 10.	Forms	Include form-handling capabilities.

FR 11.	Events Calendar	Include calendaring capabilities, including archive of past events
FR 12.	D/P/C page types	(1) Homepage, (2) General section landing page, (3) News and Events page, (4) News story page, (5) Fields of Study page, (6) Detail page, (7) Directory main page, (8) Directory detail page, (9) Calendar page, (10) Calendar detail page, (11) Announcements/Bulletin board, (12) Giving page
FR 13.	D/P/C content types	(1) announcements, (2) featured news, (3) newsletter content, (4) spotlight content, (5) videos, (6) events, (7) directory entries
FR 14.	Blogs	Include blog function ability.
FR 15.	Analytics	Provide integration with Google Analytics.
FR 16.	Access to Printed Materials	Allow for upload and viewing of PDF documents.

Technical Requirements

ID	FOCUS	REQUIREMENT
TR 1.	Open Browser Standards	Website must open browser standards, with a focus on proper functionality and appearance in Internet Explorer (including versions 7 and 8), Firefox, Chrome and Apple Safari
TR 2.	Portability	Deliver functional requirements to users across various common device platforms, including Microsoft, Linux, Android and Mac Operating Systems, PC or mobile
TR 3.	Administration	Provide a system administrative function for purposes of defining users, roles, groups, access/update privileges, delegates, workflows, events, master templates, system messages, alert emails and administrative functions of CMS and web publishing sub-systems.
TR 4.	Unrelated sites	Provide the ability to support development of multiple, unrelated sites, where each site has its own set of users and roles
TR 5.	Updates	Provide the ability to support standard software update procedures that include new feature sets to keep the system up to current web standards and patches/bug-fixes to keep the system free from defects
TR 6.	Infrastructure	Website should be developed for WordPress 3.4.2
TR 7.	Social Media Integration	Provide the ability to support integration with Facebook, Google+, Twitter, Reddit, and YouTube.
TR 8.	Newsletter Integration	Provide the ability to create content-driven newsletter (blog-like functionality) using the CMS, and provide e-mail templates for pushing this content out.

TR 9.	Resolution	Design the site for a minimum screen resolution of 1024x768.
TR 10.	Degradation	Provide the ability to degrade gracefully in all other browsers.
TR 11.	Performance	Provide the ability to render pages within a 2 second objective, given fully-optimized standard broadband connectivity and platform performance.
TR 12.	Mobile	Provide the ability to render designated (optimized) pages on current smart phone/tablet browsers.