

BEE<sup>now</sup>® CERTIFICATION DOCUMENTATION

TITLE	DESCRIPTION	MAXIMUM CREDITS	REQUIRED DOCUMENTATION
		<b>387</b>	
<b>1. ACADEMIC CATEGORY</b>	<b>The following guidelines are intended to address the full scope and range of work related to Curriculum, Scholarship and Service in addition to any Creative Endeavors in Built Environment Education with an emphasis on the reduction of energy and water consumption.</b>	231	
<b>a. Curriculum</b>	Course credits are for courses that are ongoing and have existed for at least 1 full year.	114	
i. Studio Courses	Credit(s) for Studio Course(s) that clearly incorporate the following topics: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each topic counts for 1 credit in any Studio. The same topic can earn multiple credits if used in multiple Studio courses.	36	Syllabus(s) and at least one sample of the relevant work from an average student for each topic submitted. Each topic can be used only once. Evidence of sustainable design process and/or methodology is required and should be compatible to the learning outcome of the specific topic(s). The same student's work can be submitted if it demonstrates more than one of the topics. Syllabus(s) must clearly indicate the instructor's name and semester (quarter) that the course is given.
ii. Practice-Integrated Courses	Credit(s) for Practice-Integrated Course(s) (engaging active projects, professional consultants and/or clients) that clearly incorporate the following topics: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each topic counts for 1 credit in any course. The same topic can earn multiple credits if used in multiple Practice-Integrated courses.	18	Syllabus(s) and at least one sample of the relevant work from an average student for each topic submitted. Each topic can be used only once. Evidence of sustainable design process and/or methodology is required and should be compatible to the learning outcome of the specific topic(s). The same student's work can be submitted if it demonstrates more than one of the topics. Syllabus(s) must clearly indicate the instructor's name and semester (quarter) that the course is given.
iii. Lecture Courses	Credit(s) for Lecture Course(s) that clearly incorporate any of the following categories: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each topic counts for 1 credit in any course. The same topic can earn multiple credits if used in multiple Lecture courses.	18	Syllabus(s) and at least one sample of the relevant work from an average student for each topic submitted. Each topic can be used only once. A sample can consist of one image pertaining to the learning outcome of the specific topic(s). The same student's work can be submitted if it demonstrates more than one of the topics. Syllabus(s) must clearly indicate the instructor's name and semester (quarter) that the course is given.
iv. Lab Courses or labs offered as part of a course	Credit(s) for Labs(s) that clearly incorporate any of the following categories: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each topic counts for 1 credit in any course. The same topic can earn multiple credits if used in multiple Lab courses.	18	Syllabus(s) and at least one sample of the relevant work from an average student for each topic submitted. Each topic can be used only once. A sample can consist of one image pertaining to the learning outcome of the specific topic(s). The same student's work can be submitted if it demonstrates more than one of the topics. Syllabus(s) must clearly indicate the instructor's name and semester (quarter) that the course is given.
v. Extra courses	Credit(s) for course(s) covering one or more low-energy design strategies in greater depth than required by the prescriptive architectural curriculum standards. Either a maximum of one required course and one elective or three elective courses. Required courses count for 12 credits, elective courses count for 6 credits.	24	Syllabus(s) and at least one sample of the relevant work from an average student for each topic submitted. Each topic can be used only once. A sample can consist of one image pertaining to the learning outcome of the specific topic(s). The same student's work can be submitted if it demonstrates more than one of the topics. Syllabus(s) must clearly indicate the instructor's name and semester (quarter) that the course is given.
<b>b. Scholarship</b>	Scholarship credits are for work completed by faculty within the last 2 years.	42	
i. Funded Research Work	Credit(s) for funded research that involves qualitative or quantitative methodologies focused on the reduction of energy consumption in categories such as: Integrated Design Process; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each award counts for 6 credits.	12	A letter of research award acceptance and report that includes the source of grant for each funded research project. Evidence of where funded research work was applied and when it was published if applicable.

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ii. Practice-Integrated Collaboration	Credit(s) for Practice-Integrated Course(s) engages active projects, professional consultants and/or clients that involves qualitative or quantitative methodologies focused on the reduction of energy consumption in categories such as: Integrated Design Process; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each project counts for 2 credits.	6	Documents that show the significant energy reduction strategies used in designs created via collaboration with practitioners. Where applicable, a sample should consist of documents that show public recognition of the significant work (e.g. awards, articles, certifications).
iii. Published Work	Credit(s) for work published that utilizes qualitative or quantitative methodologies focused on the reduction of energy consumption in categories such as: Integrated Design Process; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each published material counts for 6 credits.	12	A copy of each published work showing where and when it was published. If not obvious, a sample should explain how the published work promotes low energy design.
iv. Professional Practice	Credit(s) for professional practice that draws upon a Faculty's skill and expertise in the significant reduction of energy consumption. The work could incorporate any of the following categories: Integrated Design Process; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each Faculty Member counts for 2 credits.	6	Documents that show the significant energy reduction strategies used in designs created. Where applicable, a sample should consist of documents that show public recognition of the significant work (e.g. awards, articles, certifications).
v. Creative Work	Credits for creative work that features Faculty exhibits, pavilions, and/or installations that promote an awareness of the value, need and/or impact of energy reductions. The work could incorporate any of the following categories: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each Faculty Member counts for 2 credits.	6	A description of the creative work in an abstract of 100 words that include the location, time frame, and recognition of the work. A sample should consist of one image of any posters, awards, announcement that illustrates the scholarly work.
<b>c. Service</b>	Service credits are for faculty activities that are ongoing and have existed for at least 1 full year.	48	
i. Sustainability Committee	A permanent committee of faculty whose mission is to improve the teaching of sustainability with an emphasis on low-energy design.	12	A description of the activities of the committee in an abstract of 100 words that identifies the name of the committee, its present Members, and the charge to the committee. The description should include the projects this committee has worked on in the last 2 years, and identify the projects that have been successfully completed and which are still in progress or are planned.
ii. Service-based Activities	Credit(s) for work that requires multiple abilities and expertise (develop new knowledge; train others; help build a community's capacity to generate their own solutions; and disseminate knowledge in accessible and useful ways for the public), which clearly incorporate 1 or more categories of: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each project counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, a sample should consist of images and documents that illustrate the activities.
iii. Sustainability Lectures	Credit(s) for school-wide lecture series that is repeated each year by internal or external lecturers on the topic of low-energy design. Each internal speaker counts for 6 credits and external speakers count for 12 credits.	12	A copy of the flyer used to advertise the lecture. The flyer should announce the speaker's name/s, the title of the lecture, date, and a short synopsis of the talk. A document that shows the policy of having at least 1 lecture per year on low energy design should be included.
iv. Awards, Honours and Prizes for students	Credit(s) for undergraduate or graduate students who receive awards or other recognition for work resulting in a reduction of energy consumption now or in the future. Each student counts for 6 credits.	12	A copy of the award(s), the prize(s), or the document(s) of recognition. It must be clear who, when, and what the award is for.

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<b>d. Awards and recognitions</b>	Faculty credits are for credentials that are active. Recognitions or awards cannot be more than three years old.	24	
i. Credentials	Credit(s) for faculty(s) who has a main affiliation or recognition with sustainable certifications/accreditations in sustainability (e.g. LEED AP) and or who has an advanced degree with an emphasis on low-energy design. Each Faculty Member counts for 2 credits.	12	A copy of certificate of affiliation or certification, and or transcript of the advanced degree with a list of low-energy courses. Where applicable, the name of the dissertation (thesis) and a 50 word synopsis of how it relates to low energy design should be identified.
ii. Recognitions	Credit(s) for faculty Awards, Honours and Prizes that recognize excellence in low-energy design or 1 of the following categories: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each faculty counts for 3 credits.	6	A copy of the Awards, Honours and Prizes in an abstract of 100 words of what the recognition was for.
iii. Teaching	Credit(s) in which a faculty teaching a Lecture course is also teaching a Studio course during the same semester. In this case, the Lecture course must clearly incorporate any of the following categories: Integrated Design Process; Low Energy Design; Environmental Controls; Advanced Mechanical Systems; Building Performance Analytics; Daylighting/Lighting; Energy Studies; Water Conservation Studies; Life Cycle Analysis/Embodied Energy/Carbon Footprint; Material Consumption/Recyclability and Waste Management; Parametric Modeling; Green Rating Systems; Sustainability Metrics; Environmental History and Theory. Each Faculty Member gets 3 credits.	6	Syllabuses must clearly indicate the instructor's name and semester (quarter) that both the Studio and Lecture courses are given.
<b>e. Innovation</b>	Innovation credits are for ongoing activities and have existed for at least 1 full year.	3	
i. Creative Endeavors in Built Environment Education	Credit(s) for devising and implementing an idea that decreases energy consumption of the school, community, nation, or world. The strategy must be implemented and documented through a publication that describes the idea and its impact.	3	A paper describing the project with the abstract of 100 words and evidence of where and when it was published.
<b>f. Support From Professional Practice</b>	Credit(s) for established support from firms and sustainability consultants. Each firm gets 1 credits.	3	Identify the firms who regularly contribute their staff resources towards education and curricula at this institution. A list of firms and description how each firm is supporting the school should be submitted.
<b>2. INSTITUTIONAL CATEGORY</b>	<b>The following guidelines are intended to address the full scope and range of work related to the functionality of the architecture school with the broader campus with an emphasis on the reduction of energy and water consumption.</b>	144	
<b>a. Administration</b>	<b>Administration credits must be for ongoing activities that have existed for at least 1 full year.</b>	12	
i. Engaging Sustainability Commitment	Credit(s) for public statements by the school/department that describes the school's commitment to teaching low-energy building towards minimizing climate change. An orientation lecture, website, and/or brochure count for 4 credits each.	12	A description of the activities/materials in an abstract of 100 words that identifies names, locations, and time periods. Where applicable, a sample should consist of images and documents that illustrate the activities.
<b>b. Facilities Management</b>	<b>Facilities Management credits are for ongoing activities that have existed for at least 1 full year.</b>	48	
i. Laboratory	Credit(s) for a physical space for the accomplishment of lab type tasks (e.g. experiments, demonstrations) to foster low-energy design. Each dedicated lab space counts for 6 credits.	12	Syllabus(s) of courses using the laboratory and photographs of the space and physical equipment (such as low-energy equipment, wind tunnels and heliodons).
ii. Sustainable Operations	Credit(s) for the school/department's existing practices of facility management that reduce the consumption of energy. Each major effort counts for 4 credits.	12	A description of the activities in an abstract of 100 words that identifies an assessment of the benefits of each effort. Where applicable, names of who could be contacted for more information should be included.
iii. Programs	Credit(s) for a plan of action aimed at accomplishing a clear and significant energy reduction of the facilities. Plan and implementation counts for 6 credits each.	12	A description of the activities/materials in an abstract of 100 words that identifies names, locations, and time periods. Where applicable, a sample should consist of images and documents that illustrate the activities.
iv. Personnel	Credit(s) for any people employed at the institution's school/department whose job description includes activities that reduce energy consumption. For example, a faculty or staff in the school/department who is involved in the sustainable operations of the university. Each person counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, and time periods. Where applicable, a sample should consist of images and documents (sustainable relevant training certificates) that illustrate their activities.
<b>c. Initiatives</b>	<b>Initiative credits are for activities that have existed for at least 1 year.</b>	84	
i. Students Organization	Credit(s) for a student sustainability group or organization whose goals include the reduction of energy consumption. Each organization counts for 4 credits.	12	A charter or other organizing document which states that the purpose of the organization includes low energy design.

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ii. Staff and/or Faculty Activities	Credit(s) for a measurable amount of work by the faculty or staff employees of the institution performed to convert inputs of service into outputs of accomplishments regarding the reduction of energy consumption within the school/department. For example, a university program or committee with representatives from the staff/faculty that have a direct impact on occupant behavior towards energy reduction. Each program counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, a sample should consist of images and documents that illustrate the activities.
iii. Students Activities	Credit(s) for a measurable amount of work by the students of the institution's school/department that results in a reduction of energy consumption. Only students other than those in the student organization described above. Each activity counts for 4 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, a sample should consist of images and documents that illustrate the activities.
iv. Integrated Activities	Credit(s) for a measurable amount of work by the faculty or staff employees in partnership with students of the school/department performed to convert inputs of service into outputs of accomplishments regarding the reduction of energy consumption. Each activity counts for 4 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, a sample should consist of images and documents that illustrate the activities.
v. Financial Aid	Credit(s) allocated by the school/department for the purpose of reducing energy consumption. Each funded project counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, a sample should consist of images and documents that illustrate the purpose of the funding.
vi. Outreach	Credit(s) for providing services related to energy reduction to any populations outside the school/department who may benefit from access to those services. Each project counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, documents that show public recognition of the outreach project(s) should be included.
vii. Continuing Education	Credit(s) for energy reduction education provided by the school/department for non-degree-seeking adults, consisting typically of part-time courses. Each continuing education course counts for 6 credits.	12	A description of the activities in an abstract of 100 words that identifies names, locations, time periods, and benefits. Where applicable, documents that show public recognition of the significant work (e.g. awards, articles, certifications).
<b>3. SURVEY (required)</b>		12	
Survey by Seniors and Graduates (within 1 year of graduation)	All graduating students are required to take an online survey about the education they received in regard to low-energy design. The school/department will receive a summary of the survey results.	12	A list of names with contact information of the present seniors and most recent graduates. Any students that were omitted from the survey should be identified to explain why they did not participate.