2023-24

## CATALOG

THE LANDING SCHOOL



Imagine. Design. Build. Maintain.

The Landing School effectively prepares students for careers in the marine industry as designers, builders, systems technicians, and managers.

Version 2.1.0

# YACHT DESIGN WOODEN BOAT BUILDING COMPOSITE BOAT BUILDING MARINE SYSTEMS BOATYARD MANAGEMENT





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#### ACCREDITATION

In 1987, The Landing School became the first school of its type to be accredited by The Accrediting Commission of Career Schools and Colleges (ACCSC), which is listed by the United States Department of Education as a nationally recognized accrediting agency under the provisions of Chapter 33, Title 38, U.S. Code and subsequent legislation. The ACCSC is a member of the Council on Post-secondary Accreditation.



#### NONDISCRIMINATORY POLICIES

The Landing School admits students of any religion, sexual preference, gender, age, race, color, nationality and ethnic origin to all rights, privileges, programs and activities generally accorded or made available to students at the School with regard to educational policies, scholarships, loan programs and other school-administered programs.

The Landing School does not discriminate against physically limited persons; however, applicants should realize that certain physical limitations are not consistent with safety and practicality in the use of tools and machinery, nor with the dexterity required in the construction of boats or the installation and servicing of marine systems. The School stands ready to discuss with a physically limited applicant his or her potential for deriving full benefit from the School's programs and prospects for employment in various aspects of the marine industry.

#### **CATALOG STATEMENT**

All statements contained in this catalog reflect the approved policies of The Landing School as of November 2022. However, for educational or financial reasons, The School reserves the right to change the provisions, statements, policies, curricula, procedures, regulations or fees described herein. Such changes will be duly published and distributed. Students, faculty, and staff are responsible for all information and deadlines contained in this catalog and in the current Student Handbook. The Student Handbook expands upon college policies and procedures. All photos are property of The Landing School.

Version 2.1.0



#### THE LANDING SCHOOL

The Landing School blends modern yacht design, wooden boat building, composite boat building, and marine systems under one roof, offering a diversity of marine industry technology education. The School bridges the gap between theory and practice to provide graduates with the skills and understanding necessary for current employment opportunities and future career growth. The School offers four 1-year diploma program options and six pathways to a 2-year Associate of Applied Science degree in Marine Industry Technology. Diploma and degree options are both designed to prepare students for a rich career in the marine industry.

#### THE LANDING SCHOOL STUDENTS

The student body is comprised of high school graduates, gap year students, adult learners, second career seekers, international students and veterans seeking a career in the marine industry. In addition, some of our students are retired or taking a break from formal academics and find spending time at The Landing School invaluable. Because the School offers a diversity of marine industry technology education, students come from all over the world and from all walks of life.

#### **High School Graduates**

With the opportunity to achieve a diploma in one of our marine programs in one academic year (8 months) or an associate degree in two academic years, The Landing School is an affordable and smart investment for high school graduates who are looking for an alternative to a traditional four-year university. Small class sizes and one-on-one time with a variety of instructors offers a broad education that combines theory and practice to create a very effective and thorough experience. Access to career development services, an onsite learning resource center and attentive administrative services ensures that students receive all the help they need to be successful in their course of study.

#### **Gap Year Students**

Deciding upon what post-secondary education pathway to take is a life-defining decision. Before taking the step from high school to a traditional 4-year university, some students are now choosing to take a Gap Year. A Gap Year student can spend an extraordinary year at The Landing School, discovering new personal passions, becoming a higher-performing student while building confidence and maturity, and mastering unique skills that will last a lifetime.

#### **Adult Learners, Second Career Seekers**

At The Landing School, we encourage students to embrace the challenges of a hands-on marine program. The work here is traditional in terms of classwork and lectures but also progressive in terms of the collaboration between students and instructors on real world projects. Many of our students are looking to pursue the career they always wanted in a marine trade. Others are interested in learning more about how to maintain their own boats or have always wanted to build a boat with their own two hands. Whatever the case, adult learners find an atmosphere that combines passion with education to create a truly unique experience.

#### International Students

Students at The Landing School come from across the world. Less than two hours from Boston's Logan International Airport, access to the school is easy. The location offers a variety of opportunities to explore. Art galleries, outdoor recreation, theater, and of course boating opportunities abound. International students also have access to resources to help them with visas, housing and other services they require to make their stay in Maine and their experience at The Landing School a fulfilling and rewarding one.

#### **Veterans**

The Landing School is designated as a Military Friendly School and is approved as an institution of higher education by the Maine State Approving Agency for Veterans Education Programs including the Post-9/11 G.I. Bill ® (Chapter 33), the Montgomery G.I. Bill ® (Chapter 30) and Veterans' Vocational Rehabilitation Programs (Chapter 31). Veteran applicants are encouraged to submit eligibility paperwork shortly after submitting their Landing School application.

#### HISTORY

"The Landing" is a short stretch of the Kennebunk River where The Landing School is located. It was once an internationally famous shipbuilding area. Between 1766 and 1867 it was the home of more than 20 shipbuilding firms. As the economic effects of the Great Depression descended over the country in the early 20th century, the shipbuilding business throughout Maine began to dwindle. In 1942, The Landing hosted its last official launching of a commercial vessel, a police cruiser. In December of 1978, three and a half decades later, the first class of students at The Landing School launched a Chamberlain dory-skiff, reviving the boat building trade along The Landing.

The Landing School was established in 1978 by John Burgess and Helen (Cricket) Tupper as a nonprofit, post-secondary institution dedicated to providing a high quality hands-on education in boat building. The first year was attended by nine students who used a cow barn as a classroom and built two dories and two 18-foot sailboats as the curriculum. That program became the Wooden Boat Building program.

In 1979, school administrators set out to fill a critical void in the industry where well-trained tradespeople were in high demand. This objective spurred the creation of the Yacht Design program. This program provided the global marine industry with a source of new designers trained specifically in the techniques and aesthetics of yacht and commercial boat design.

Two decades later, boatyards were struggling with a shortage of trained marine systems technicians. In September 1999, The Landing School once again responded to the industry's need by launching the Marine Systems program. At the same time, the School began a multi-year aggressive growth plan that resulted in a large addition that was completed in 2007. The addition provided room for the curriculum to expand again with the creation of the Composite Boat Building program. In 2009, the State of Maine Department of Education and the School's accrediting agency, ACCSC, approved The Landing School as a degree-granting institution.

Today, each of The Landing School's eight-month-long programs culminates in a diploma for students who successfully complete their courses within the high standards set by the faculty and students who successfully complete two technical programs plus an additional 8 credit-hours of general education courses are eligible to receive an Associate of Applied Science degree.

Education from The Landing School reinforces and preserves traditional design and construction methods while advancing the art of boat building, design and maintenance through the integration of modern techniques and contemporary materials. The marine industry values this unique training and has lauded The Landing School internationally with a reputation for graduates of exceptional quality. The School is considered to be a leader in marine industry education.

#### **OWNERSHIP**

The Landing School is a non-profit organization incorporated in the State of Maine. It is governed by a board of trustees and is managed by an administrative staff.

#### PHILOSOPHY

Because of combined classroom and workshop structure, students leave The Landing School with a "knowledge-and-skills" marine industry technology education. Our faculty reinforces and preserves traditional practices while employing the latest techniques to ensure that our students walk away with a well-rounded education that will serve them now and in the future.



#### ADMISSION REQUIREMENTS AND PROCEDURE

The Landing School offers rolling admissions, meaning prospective students can apply to the School at any time. When reviewing applications for enrollment, The Landing School admissions committee considers the professional goals of prospective students as well as their enthusiasm for the marine trades, and the applicant's ability to successfully complete the program of study. Applicants to The Landing School must have a minimum of a high school diploma or a certificate of high school equivalency (GED), although a number of students come with college degrees.

The Landing School requires the following criteria for admission:

- Completed application form
- Completed personal statement
- Official final high school transcript that certifies the date of high school graduation; or official General Education Diploma (GED)
- Official transcripts from all colleges attended, whether or not credit was earned
- One non-family letter of recommendation
- Interview with admissions representative

Math skills such as Algebra II, Trigonometry, and Geometry are essential in the successful completion of the Yacht Design program. If the student's school transcript reveals that they have not studied these topics or it indicates a history of low grades in these topics, the School may require a brief online assessment and will suggest remedial coursework prior to beginning classes.

Applicants are encouraged to arrange for a visit to the School to tour the campus and learn more about the programs first-hand. When all components of the application package have been submitted, the applicant is required to schedule an interview with admissions, which can be done in person, via phone, or Zoom. The Landing School reviews completed applications on a rolling basis prior to the start of the upcoming academic year.

The School strongly encourages early applications because seats in each of the academic programs are offered to qualified applicants on a first-come, first-served basis. Once all programs are filled, additional qualified applicants are placed on a waiting list and are notified of openings as they become available. Students are considered enrolled once the School has received a signed copy of the Enrollment Agreement and tuition deposit. Waiver of the tuition deposit will be made on a case-by-case basis. Please contact the Financial Aid office for more information. Each year there are some enrolled students who must withdraw, so a small number of spaces may become available immediately prior to the start of the school year. Interested applicants should apply even if a class is full.

Boatyard Management: Students who have completed at least one of our programs may apply to the Boatyard Management program. An admissions committee of three will evaluate applicants based on previously demonstrated shop/classroom performance, work ethic, and quality of work. In addition, admission to the Boatyard Management program may be offered to candidates who do not already have a Landing School diploma but have significant industry experience and would like to advance their career into management.

#### **ENROLLMENT PROCEDURE**

An applicant who has been accepted to The Landing School receives a packet that includes a letter of acceptance, an enrollment agreement, a student financial policy and an electronic copy of the current catalog. The applicant signs the enrollment agreement and student financial policy and returns them with a tuition deposit by the date specified in the acceptance letter; the student's spot in the program will then be confirmed. The Landing School will notify the accepted candidates of their enrollment.

#### IMMUNIZATION AND HEALTH INSURANCE REQUIREMENT

Maine State law requires all individuals born after December 31, 1956, who plan to enroll in a degree program or plan to take twelve or more credits, to show proof of immunity against measles, mumps, rubella, diphtheria, and tetanus before registering for classes. Immunization Records should be sent to: The Landing School, Attn: Admissions Department, 286 River Road, Arundel, ME 04046. Immunization and proof of health insurance records must be on file with the School before students will be allowed to register for classes.

#### STUDENT HANDBOOK

At the beginning of the academic year, each student receives a Student Handbook which is a compilation of school rules and policies. Students should familiarize themselves with The Landing School's rules and policies. While at the School, compliance with the Student Handbook is a condition of continued enrollment.

#### INTERNATIONAL STUDENTS

The School is approved by the U.S. Immigration and Naturalization Service as an institution eligible for attendance by non-immigrant students. The student must furnish the School with proof of ability to pay the full cost of attendance (tuition, fees and all living expenses) and identify the source of the funds. All foreign credentials (high school and college transcripts and academic records) must be translated to English and evaluated for U.S. equivalency by an authorized agency. A list of these agencies can be found on our website. The School then sends the student the appropriate SEVIS form on which the School certifies his or her acceptance. The student needs this form to apply for a non-immigrant student visa. International students should allow sufficient time to complete this process. English language proficiency for reading, writing and speaking is an essential factor for success in all of the School's programs and is a criterion for admission. International students may be asked to submit TOEFL scores if English is their second language. A TOEFL score of 79 or greater is required. The Landing School may waive English proficiency requirements if proficiency is demonstrated during admissions process. All international students at The Landing School are required to have health and accident insurance and must document proof of coverage before they can attend classes.

#### **CAMPUS VISITS**

The Landing School welcomes visitors. Tours may be booked online or by calling the Office of Admission at 207-985-7976. Admissions representatives are always available to advise students and their families on the admission process and are available to discuss special circumstances and needs.

#### CAMPUS SAFETY AND SECURITY

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1998 requires schools to disclose three years of statistics regarding campus crime. The Schools report includes policies for campus security, such as those concerning alcohol and drug use, crime prevention, the reporting of crimes, and other related matters. A copy may be requested by email at inquiries@landingschool.edu or by calling the School (207) 985-7976 to request a paper copy. Additional information can be found in the student handbook.

#### GRADUATION AND TRANSFER-OUT RATES

Amendments to the Student Right to Know Act stipulate that schools provide prospective students with information on the rate at which students successfully complete programs within 150% of the normal program length, or transfer out to another institution. The historical graduation and transfer-out rates for all students in all programs at The Landing School are:

Academic year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Total students starting	68	49	54	63	50	52
Graduation rate	90%	94%	96%	87%	92%	96%
Transfer-out rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

#### TRANSFER CREDITS

Students may submit general education credits earned at accredited colleges and universities and/or appropriate military training to The Landing School for transfer evaluation. Transfer credits may be awarded for courses that are relevant to careers in the marine industry and appropriate to meet The Landing School's general education requirements.

A course must meet the following additional criteria to be eligible for transfer credit:

- The course scope is the equivalent of 2 or more semester credit hours.
- The student has earned a minimum grade of C in the course.

The Landing School will award transfer credit for general education requirements required for non-degree and undergraduate programs, but does not award more than 2 semester hours of transfer credit for any individual course. It is the sole responsibility and authority of The Landing School to award transfer credit.

- A student will complete the ACADEMIC PETITION FORM which requires the student to specify his/her request and justify the course(s) that
  meet(s) the general education requirements at the Landing School.
- A student will also complete the "GENERAL EDUCATION CREDIT EVALUATION AND TRANSFER" form. This form requires the name of the institution where the credit was earned, the course number and name, and the number of course credits (from the awarding institution).
- The student must submit an official transcript from the institution where the credit was earned verifying the information on the "GENERAL EDUCATION CREDIT EVALUATION AND TRANSFER" form and the student's grade in the course(s).
- The "GENERAL EDUCATION CREDIT EVALUATION AND TRANSFER" form and transcript are reviewed by the Director of Education and the Director of Education approves those general education courses that meet the requirements for transfer credit and awards two (2) Landing School semester credit hours for each approved general education course.
- Prospective students may request a preliminary transfer credit evaluation prior to enrollment.

#### **CLEP TRANSFER CREDITS**

The Landing School recognizes the assessment of prior learning by accepting appropriate CLEP (College-Level Examination Program) exams which measure mastery of college-level, introductory course content. Credit for CLEP exams can only be transferred toward fulfilling General Education credits. Students must request an official copy of their CLEP exam scores be sent to The Landing School in order to be evaluated for credit transfer. Students who achieve required credit-granting scores on these exams can earn the credits and course exemptions listed below.

College Composition College Composition (Modular) College Mathematics Principles of Management

College Algebra Calculus Precalculus Natural Sciences

#### TIME OBLIGATION

A student who enrolls in any of the programs is obligated to attend school full-time. Although students can only take one program at a time, many students spend multiple years at The Landing School in order to complete multiple programs. A student who successfully completes two technical programs plus an additional 8 credit-hours of general education is eligible to be awarded an Associate of Applied Science degree. The available career options expand for a student who receives diplomas from two or more programs. The amount of time to complete a diploma is approximately 8 months (two academic semesters). An Associate's degree requires two 8-month technical programs (four academic semesters) to complete and must be completed within 1.5 times the combined program lengths (i.e. within 6 academic semesters). Given extenuating circumstances, students may petition for additional time in which to complete their degree requirements, and these petitions are reviewed on a case-by-case basis.

#### STANDARDS FOR SATISFACTORY ACADEMIC PROGRESS

Each 8-month academic year is divided into two primary formal marking periods (semesters), each consisting of approximately 14 instructional weeks, excluding breaks and holidays. Each semester of a full-time technical program is made up of multiple courses of varying credit hours that are taught throughout the semester. Students must also satisfy the requirements of a mid-year Inter-Program Activity Period (IPAP) in January that formally ends the fall semester, either through an on-site 1-credit Technical Elective, or an appropriate and approved alternative.

All students receive a mid-term report documenting their academic standing in their current courses. All students failing to meet the standards for graduation are placed on academic warning and given written notification. The written notification of academic warning includes the following information:

- The course number(s), title(s) and grade(s) to date for course(s) not meeting the requirements for graduation.
- · The required remedial action necessary for a student to achieve satisfactory academic progress.
- The student's current cumulative GPA.

Students on academic warning are periodically reviewed by the appropriate instructor(s), typically following the completion of remedial work and regular assignments.

A student receives a grade in each course at the end of each semester. A student must earn a grade of a "D" or greater in a course in order to earn the credits for that course. A student who earns below a "D" in a technical program course will be dismissed. A student must earn a grade of a "D" or greater in all courses each semester and achieve an overall GPA of 2.0 or greater in a full-time technical program in order to earn a diploma and/or degree.

#### **GRADING SYSTEM**

The School recognizes the importance of consistent, fair and periodic evaluations of student performance, both as a means of measuring the student's progress towards educational goals and as a method of evaluating the School's success in providing the education for which the student has contracted. The grading system used throughout the School for all category grades, progress reports and final grades is as follows:

Grade Point	Approx. Percentage	Letter	Description
4.00	93-100	Α	·
3.67	90-92	A-	Excellent – Exceptional Achievement
3.33	87-89	B+	
3.00	83-86	В	Good - Extensive Achievement
2.67	80-82	B-	
2.33	77-79	C+	
2.00	73-76	С	Satisfactory – Acceptable Achievement
1.67	70-72	C-	
1.33	67-69	D+	Poor – Minimal Achievement
1.00	65	D	
<1.00	<60	F	Failure – Inadequate Achievement

Individual grades will be entered into a student's transcript using the Grade Point (4.0) Scale. Grade averages and GPA will be calculated to the nearest hundredth of a point using the Grade Point Scale. Percentage scores and letter grades will be averaged prior to converting to the grade point scale.

#### **CREDITS AWARDED**

37 credit hours are awarded for completing each of four the technical programs. These credits are comprised of:

Fall: 15 technical credits and 3 general education credits embedded within the technical curriculum, plus 1-credit IPAP (18 credits total)

Spring: 18 technical credits

As a continuation of the fall semester, all students are required to complete an additional 1-credit Technical Elective during the IPAP in January. During IPAP, students engage in intensive study in a program outside their primary program of study, increasing their breadth of marine industry knowledge.

#### CLOCK-HOUR TO CREDIT-HOUR CONVERSION - DEFINITION OF A CREDIT-HOUR

A credit-hour is defined as an amount of work represented in intended learning outcomes and verified by evidence of student achievement for academic activities as established by the institution comprised of the following units: didactic learning environment, supervised laboratory setting of instruction, externship, and out-of-class work/preparation. Credit hours awarded for each course are a reflection of the relative proportion of each of these instructional units.

#### GLOSSARY OF CREDIT-HOUR TERMS

A didactic learning environment is one which is led by a qualified faculty member for the intention of teaching and learning and can be in a classroom or laboratory setting of instruction.

A supervised laboratory setting of instruction is when students engage in discussion and/or the practical application of information presented in the didactic portion of the program or discovered through out-of-class work/preparation (e.g., practical application settings, clinical settings, etc.) under the supervision of a qualified faculty member.

Out-of-class work/preparation is that which students engage in as a means to prepare for the didactic learning environment or supervised laboratory setting of instruction and must be articulated through a course syllabus. An institution must be able to justify the number of hours estimated for that outside-of-class work. The student's work outside of class must be consistent with course educational goals and objectives; documented, assessed/graded; and serve as an integral part of the structured, sequenced educational program as described in the syllabus.

An externship is a component of a program that meets the Commission's externship standards and is offered in a bona fide occupational setting for which training and education are provided. The objectives and goals of an externship must allow students to apply practically the knowledge and skills taught in didactic and laboratory settings of instruction.

#### ATTENDANCE POLICY

Attendance requirements are defined by the course instructor in the course syllabus distributed on the first week of class. Typically, The Landing School requires that students attend at least 90% of all classes to be eligible to receive a diploma or Associate degree.

Typically students in danger of missing more than 10% of a course or technical program during a semester meet with the course instructor and are given a written attendance warning with the approval of the Director of Education. The written notices of attendance warning and attendance probation are retained as part of the student record.

A student who misses more than 10% of a course or technical program in a semester will likely be dismissed from the program, at the discretion of the Director of Education, and will not receive a diploma.

The Landing School typically does not grant a Leave of Absence given the intensity of the course work and the fixed curriculum.

#### **MAKEUP WORK**

Because of the compressed curriculum, extra credit work is not available. A student who has not satisfactorily completed an assignment may apply for an extension; a mandatory completion date and maximum grade obtainable may be established. All makeup work must be completed by the end of the semester in which it was assigned. If, for reasons beyond a student's control, they are prevented from completing a course within the prescribed time, the student may ask the instructor for a deferred grade. If the instructor agrees to this action, the instructor reports the student's grade as a DF at the end of the semester to delay issuing a grade and to allow the student more time to complete course work.

#### STUDENT DISMISSAL

A student may be dismissed for any of the following reasons:

- · Failure to comply with the standards of satisfactory progress for the program in which the student is enrolled
- Failure to comply with the School's attendance policy
- · Non-payment of tuition by the due date
- Violation of the School's alcohol, drug and harassment policies
- · Violation of the School's safety policies or repeated negligence in the use and care of shop tools and facilities
- · Failure to comply with any other school rules and policies as published in the Student Handbook



#### TERMINATION AND RE-ADMISSION

If a student is dismissed or withdraws from the School for any reason, they must subsequently apply for and be granted re-admission in a new school year. A student who applies for re-admission after dismissal or withdrawal may either apply to their originally enrolled technical program or elect to apply to a different technical program. The technical course grades from the original unsuccessful enrollment are not used in the calculation of the grade point average in the subsequent enrollment period(s). The student will be considered a new enrollree.

#### STANDARDS FOR GRADUATION

To be eligible for graduation, a student must have satisfactorily completed their program, meeting all evaluation criteria and attendance requirements, as well as meeting all financial obligations to the School. For students working towards an Associate of Applied Science degree, the same standards apply for each of the two technical programs, the general education courses, and the IPAP technical electives.

#### PROCEDURE FOR COMPLAINTS

Students may have minor complaints, grievances or questions that can be resolved by school faculty or administration. All faculty members and the Director of Education have an open-door policy with students and are available to discuss emergencies at all times and routine problems as time permits. If informal means fail to resolve a problem adequately or if a problem is of such seriousness that it requires additional action, a more formal avenue may be appropriate.

A student who experiences harassment or is affected negatively by the behavior of a student or staff member should complain in writing to one of the School's Deputy Title IX Coordinators as soon as possible. If the complaint involves one of the Deputy Title IX Coordinators, the complaint should be addressed to the Title IX Officer. Evidence, if any, should be preserved. A student or employee has the option of contacting law enforcement and, if requested, school personnel will assist with this notification. School personnel will also, if requested, assist a student or employee in locating off-campus counseling. If requested by a complainant, the School will make practical attempts to change a complainant's academic situation.

When a complaint is made, the recipient of the complaint will initiate an investigation to be completed within three school days. If it is not possible to complete an investigation within three days, the complainant will be informed in writing of the timetable for completion of the investigation. An investigation and determination of facts shall be completed as soon as possible. The School will notify law enforcement authorities if a complaint has involved a possible criminal violation. The School may convene a hearing or discipline proceeding during which the complainant and the accused will be entitled to the same opportunities to have others present. Both accuser and accused will be informed of the outcome of any disciplinary proceeding involving allegations of a sex offense. An employee or student found to have engaged in harassment is subject to disciplinary action including suspension or dismissal in addition to the potential for criminal prosecution by law enforcement authorities. A copy of the complaint and resolution statement will be made a part of the permanent files of each student and/or employee involved. The original complaint and a copy of the resolution statement will be maintained in a formal complaint file. Anonymous complaints will not be acted upon as a formal complaint.

#### UNSATISFACTORY RESOLUTION OF COMPLAINTS

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the School has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission (ACCSC). All complaints reviewed by the Commission must be in written form and should grant permission for the Commission to forward a copy of the complaint to the School for a response. This can be accomplished by filing the ACCSC Complaint Form. The complainant(s) will be kept informed as to the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools & Colleges 2101 Wilson Boulevard, Suite 302, Arlington, VA 22201 (703) 247-4212, www.accsc.org

A copy of the ACCSC Complaint Form is available at the School and may be obtained by contacting complaints@accsc.org or at https://www.accsc.org/Student-Corner/Complaints.aspx.

Students may also direct an unresolved complaint to the Maine Department of Education at the following address::

Maine Department of Education Higher Education Specialist Jason Libby 23 State House Station, Augusta, ME 04333

#### **TUITION AND PROGRAM FEES**

Enrollment at The Landing School represents a significant commitment of time and resources and deserves careful financial planning. Tuition and program fees appear in the table below. Tools, books and projected living expenses will add to the student's total cost of attendance (COA\*\*). The COA is used to calculate Federal and State financial aid and student loan limits. Students who have dependent children and require childcare services while attending class at The Landing School may be eligible to add that expense to the COA. Students who borrow federal funds under the Federal Direct or PLUS loan programs may request that origination fees be added to the COA figures.

	Wooden Boat Building	Yacht Design	Marine Systems	Composite Boat Building	Boatyard Management
Tuition <sup>[1]</sup>	\$25,950	\$25,950	\$25,950	\$25,950	\$25,950
Program fees	\$1,500	\$1,350	\$2,200 [2]	\$3,500	\$1850
Books and Tools	\$2,100	\$2,115	\$2,100	\$2,100	\$1800
Room and Board [3]	\$12,600	\$12,600	\$12,600	\$12,600	\$12,600
Personal Expenses	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200
Local Transportation	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Total estimated COA**	\$45,850	\$45,715	\$46,550	\$47,850	\$45,900

<sup>[1]</sup> Tuition for Applied General Education courses taken at The Landing School in pursuit of an Associate of Applied Science degree is included in the above tuition. Some General Education classes that are administered by outside vendors (ex: The Captain's License course) have an additional fee.

A tuition deposit is due upon enrollment and all tuition and fees must be paid in full before registration day. Modified payment plans are available. For more information regarding payment options, the student should contact the financial aid administrator.

#### FEDERAL STUDENT FINANCIAL AID PROGRAMS

Financial Aid is available for those who qualify. The School is approved for participation in the U.S. Department of Education Student Financial Aid programs and administers Direct Subsidized/Unsubsidized Loans, Pell Grants and parent PLUS loans. Application for these programs may be made any time prior to or during the school year. U.S. citizens and resident aliens are eligible for Federal Student Financial Aid, referred to as Title IV Programs. The Landing School is approved to administer the following U.S. Department of Education Student Financial Aid Programs:

Federal Pell Grants; Federal Direct Loans, including both subsidized and unsubsidized loans;

Federal Parent PLUS (Parent Loan for Undergraduate Students) loan program

It is The Landing School's policy to disburse financial aid each semester. Financial aid disbursement is requested by the School up to 10 days before the start of the semester and is credited to the student's account as soon as it is received by the student billing office.

2022-23	Maximum 1st Year Federal	Maximum 1st Year Federal	Maximum 2nd Year Federal	Maximum 2nd Year Federal
	Support (Dependent)	Support (independent)	Support (Dependent)	Support (independent)
Estimated Pell Grant	\$6,895	\$6,895	\$6,895	\$6,895

#### APPLYING FOR FEDERAL FINANCIAL AID

There is no application fee for the Federal Student Financial Aid. To begin the application process a student must:

- 1. Notify the School's financial aid officer via telephone (207-985-7976) or email (inquiries@landingschool.edu).
- 2. Complete an electronic FAFSA (Free Application for Federal Student Aid) by logging on to https://fafsa.ed.gov using The Landing School's Title IV school code 016778.

For more information about Federal Student Financial Aid, students can call the Federal Student Aid Information Center at (800) 433-3243 or log on to studentaid.gov. Enrolled students must maintain satisfactory progress to remain eligible for federal financial aid (see the "Academic Requirements" section of this catalog for guidelines on satisfactory progress).

<sup>[2]</sup> Program Fees for the Marine Systems program include ABYC Certification tests and Study Guides.

<sup>[3]</sup> For students living as dependents (e.g. with parents), please deduct \$5,252 from the cost of attendance.

#### **SCHOLARSHIPS**

The Landing School awards scholarships for those who qualify. There are a variety of scholarships that fall into two categories, merit-based and need-based. Qualified students may be awarded both need and merit-based scholarships.

Merit-based scholarships have an application process. Prospective students may apply for multiple scholarships. If the eligibility requirements for the scholarship are not met, the scholarship will not be awarded. There is a scholarship committee that reviews applications and determines awards. Please see our website for a list of current scholarships, application process and requirements.

#### ALTERNATIVE STUDENT LOAN PROGRAMS

There are several non-federal loans for higher education available. Please contact the financial aid office for more information. (Please note: The Landing School does not specifically endorse any alternative loans.)

#### **VETERANS BENEFITS**

The Landing School is approved as an institution of higher education by the Maine State Approving Agency for Veterans Education Programs and is a designated Military Friendly School™. Veterans and their families who are eligible for educational benefits can apply their tuition support toward an education at The Landing School. Prospective students should visit the Veterans Affairs website at https://benefits.va.gov/gibill/ or call (888) 442–4551. Students who request veteran's educational assistance are required to have all previous post-secondary experience evaluated for possible transfer credit in order to be eligible for benefits.

The Landing School is approved to certify educational benefits for eligible veterans including the Post-9/11 GI Bill ® and the Montgomery GI Bill ® and veteran's vocational rehabilitation programs. Applications for veteran's educational benefits should be made as early as possible through the applicant's regional VA office. The School's VA facility code is 31005019. Applications for the GI Bill ® can also be made online at www.gibill.va.gov. Applicants should forward a copy of the Certificate of Eligibility (COE) to The Landing School's financial aid officer. Applicants with military service should send a copy of an AARTS transcript or a SMART transcript to The Landing School's financial aid office. If a student wishes to transfer credits, the School will review those credits on a case-by-case basis to determine if they are applicable.

#### TUITION REFUND POLICY AND WITHDRAWAL

The Landing School's cancellation and refund policies assure that each student is provided a fair and equitable refund of tuition and fees in situations where a student enrolls in a program and subsequently elects to cancel or withdraw, is dismissed by the School, or otherwise fails to complete the program.

#### Withdrawal

The withdrawal date is the date a student financially notifies in-person or in writing The Landing School President or Director of Education of their intent to withdraw. If The Landing School does not receive an official notice of withdrawal, the School reserves the option of using the student's last date of academically-related attendance as the withdrawal date for calculating refunds.

#### **Tuition Refund Policy**

A student who wishes to cancel or terminate their enrollment at The Landing School must inform the President of the School. All refunds of institutional charges will be administered according to the following schedule and terms. The same schedule applies for cases involving voluntary withdrawal and termination by the School:

- A student requesting cancellation within three days of signing an enrollment agreement and making an initial payment is entitled to a refund of all monies paid to the school.
- A student who requests cancellation three days after signing an enrollment agreement yet prior to the beginning of their program is entitled to a refund
  of all monies paid to the School minus a \$150 registration fee. The School must receive official notice of cancellation on or before Registration Day.
- A student who officially withdraws from the School by close of business on the Friday of the first full week of classes is still financially obligated for 50% of the total tuition and associated fees. In the event that the withdrawing student has already paid the School more than 50% of the total tuition and fees, they are eligible for a refund of that balance.
- A student who officially withdraws from the School after close of business on the Friday of the first full week of classes is still financially obligated to
  the School for 100% of the total tuition and associated fees.

#### Please note:

- Students who enroll at The Landing School without ever having visited the School may withdraw within the first three days of classes, without penalty.
- A student who withdraws from The Landing School after close of business on the Friday of the first full week of classes because of hardship (such as prolonged illness or significant family hardship) may petition the School for a prorated refund. The petition must be in writing and include supporting documentation. The petition will be reviewed within thirty (30) days by the President, the VP of Finance, and the Director of Education, at which point the student will be notified of the decision.
- The Landing School will refund any money it owes a student within 30 days from the date of cancellation or official withdrawal.

#### RETURN OF TITLE IV FUNDS (FEDERAL FINANCIAL AID)

The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended). At The Landing School, these programs include unsubsidized Stafford Loans, subsidized Stafford Loans, Federal Parent PLUS Loans, and Federal Pell Grants.

Federal regulations mandate that a student must earn their federal student aid or the funds must be returned to the federal financial aid programs. Students who receive Title IV federal financial aid and withdraw from The Landing School on or before completing 60% of the semester (in clock-hours) are entitled to keep only the portion of Title IV federal financial aid that they earned up to the point of withdrawal. If a student receiving federal financial aid withdraws after completing 60% of the semester, they are considered to have earned all of the Title IV aid for that semester.

The Landing School's financial aid office will calculate the amount of aid the student has earned using the "Federal Return of Title IV Funds Procedure." The calculation for determining the amount of aid the student has earned up to the point of withdrawal is the number of days completed divided by the total number of days in the semester. The resulting percentage is then multiplied by the total federal funds disbursed (either to the student's account or to the student directly for the semester) to determine the amount earned by the student.

Any unearned amount of aid (total aid disbursed less the earned amount) must be returned to the federal government by the School and/or the student. If any federal aid was disbursed directly to the student, they must return unearned funds to the federal financial aid programs in a timely manner.

Students who are required to return funds to the federal government will be notified by the financial aid office and provided with instructions. Funds that are returned to the federal government are used to reduce the student's outstanding balances of Title IV funds.

Financial aid returned by the School or the student must be allocated in the following order:

- 1. Unsubsidized Federal Stafford Loans
- 2. Subsidized Federal Stafford Loans

- 3. Federal Parent PLUS Loans
- 4. Federal Pell Grants

Refunds to the student and/or the federal financial aid programs by The Landing School will be made within 30 days of the date of cancellation, termination or withdrawal (as determined by The Landing School). Once the earned amount of a student's financial aid has been applied to his/her institutional charges, the student is responsible for any remaining balance due to the School. Additional details and examples of the refund and repayment policies may be obtained by contacting the financial aid office.

#### STUDENT SERVICES

Should a student need guidance on issues relating to the School or to their personal circumstances, they are encouraged to discuss these concerns with the Director of Education, and/or the Student Success Advisor, who may offer support or provide contact information for professionals who can provide specific support services.

#### ACCOMMODATION POLICY FOR STUDENTS WITH DISABILITIES

In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, The Landing School accepts students with disabilities and provides reasonable accommodations. A student is asked to contact the Student Success Advisor as soon as possible after acceptance if he or she has a documented disability that presents obstacles to learning and would like to request accommodations. The School does not discriminate against physically limited people and stands ready to discuss with a physically limited applicant his or her potential for deriving full benefit from the School's programs and prospects for employment in various aspects of the marine industry. To ensure eligibility for support services, students must provide current documentation which shall remain confidential

#### STUDENT REPRESENTATIVE COMMITTEE

A Student Committee is formed each fall with representatives from the student body and at least one representative from the administration. The committee meets monthly and offers a forum in which students and the administration can openly dialogue.

#### SCHOOL ACTIVITIES

The Landing School administration encourages student interaction and regularly sponsors activities, both as part of the curriculum and as extra-curricular learning opportunities and entertainment. Students can join school committees that drive school-sponsored functions. When possible, students may also celebrate the commissioning and launching of completed boats. Field trips to regional boat building businesses or educational functions are interspersed through the curriculum of each of the programs. The School hosts lectures and marine industry gatherings to which students are often invited. These events provide students with the opportunity to meet and speak with professionals in the marine industry and potential employers.

#### REGIONAL ACTIVITIES

Southern Maine is an inspiring region of the world. The state has a rich maritime history and a coastline that meanders for approximately 3,500 miles and includes more than 3,000 islands. During the warmer months, there are opportunities for students to go sailing, power boating, canoeing, kayaking, fishing, surfing and swimming in the nearby ocean or in any of the dozens of lakes and rivers that are within a short drive of the School. In the wintertime, students enjoy the many outdoor activities such as skiing, snowboarding, snowshoeing, skating, and tobogganing.

There are several towns near The Landing School with working waterfronts, boat yards, boat building businesses and yacht design firms all of which encourage student visits. The most active working waterfront in the region is in Maine's most populated city, Portland, which is a 30 minute drive north of The Landing School. Portland is New England's largest tonnage seaport and second largest fishing port. Portland's Casco Bay area is also host to an active sailboat racing community. Portland is a fun, lively city with many shopping, dining and entertainment opportunities.



#### CAREER PLACEMENT

Throughout the School's history, graduates have entered careers with leading marine industry enterprises all over the world. The Landing School faculty and staff work with students to build effective portfolios and resumes to showcase student knowledge and skills. The School website offers an online active job board that all students and graduates have access to. Each spring the School hosts an in-house job fair that is well attended by industry.

#### CAREER COUNSELING

The Landing School has a board of professional industry advisors from marine design, manufacture, and service industries. This program advisory committee meets at least once at year at the School and provides feedback on the curriculum in order to ensure that students are graduating with practical and marketable skills necessary for successful employment in the marine industry.

The School offers assistance with the career placement process, resume preparation, job interview preparation and other topics related to securing employment upon graduation. The Landing School does not guarantee employment for graduates but does provide information about open positions in the marine industry around the world to Landing School students via the School Jobs Board. The School also maintains contacts throughout the marine industry and assists students in establishing relationships with potential employers.









#### ACADEMIC BUILDINGS AND FACILITIES

The Landing School, located in Arundel, Maine, occupies several spacious, contemporary buildings in a residential area of the small town. The facility covers more than 50,000 square feet and includes two wooden boat building shops, a design studio, systems laboratory, composite boat building shop and laboratory, classrooms, learning resource center, student lounge and administrative offices.

The Yacht Design program contains a spacious design studio and separate classroom. The design studio is equipped with a drafting table for each student, a network 3D printer, plotters, and reference archives.

The Wooden Boat Building and Composite Boat Building shops are true work environments, similar to any other small, modern boat building facility. They are fully equipped with commercial-grade power and hand tools, and well stocked with high-quality wood and composite construction materials. The shops include areas for planing, wood-steaming, vacuum-bagging, lofting and wood storage. Each of these shops also houses cross-disciplinary equipment; the Wooden Boat Building program has a 3-axis CNC facility, and the Composite Boat Building program has a Global spray booth equipped with air handling equipment, and a laboratory with an Instron destructive testing device.

The Marine Systems program provides space for both classroom and laboratory instruction. The laboratory contains workstations equipped with AC and DC electric power, compressed air, and water. The laboratory is also equipped with lifts and industrial-grade tools used to teach marine system assembly and installation, and equipment specific to the program such as the non-potable water/ventilation supply and recovery system for running numerous diesel and gas engines in the shop.

Because all of The Landing School programs are located under one roof, students are afforded the opportunity to experience programs outside of their chosen course of study. For example, students in the Yacht Design program come in regular contact with boat shop and marine systems lab activities. This exposure is formalized throughout the academic year with cross-program teaching sessions and the IPAP.

#### STUDENT AREAS

The students at The Landing School share a common lounge area and galley with a microwave, sink, refrigerators and storage. There are also vending machines and furniture for student use in this area.

#### LEARNING RESOURCE CENTER

The "S/V Patience" Learning Resource Center serves students and faculty by providing clear paths to resources that support and enhance The Landing School curriculum. The on-site facility is a comfortable space for reading, studying and tutoring. The space provides a collection of nautical and marine-related books and periodicals, along with an historic collection of model boats from around the world. Computers and printers are available for student use. The Landing School online library provides 24/7 access to useful links and tutorials as well as to the full text of journals and periodicals. Students are encouraged to make full use of the available facilities offered as part of their marine education.

#### HOUSING

There is no on-campus housing; however the School assists students in locating economical rentals throughout Southern Maine. Area realtors can also assist with housing arrangements. Once students are enrolled at the School, they are given access to a Facebook group and rental property listings with which many students secure independent housing or make arrangements with fellow students for shared housing.



#### LOCATION AND DIRECTIONS

The Landing School, 286 River Road, Arundel, Maine 04046

From Interstate 95, take Exit 25 (Kennebunk). After the toll booth, turn left onto Route 35 toward Kennebunk. After passing the local high school, continue to travel straight on Route 35 through the traffic circle. At the next traffic light, turn left and then bear right immediately at the next light, continuing to travel on Route 35. After traveling one and one-half miles there is a blinking traffic light. At this blinking light, turn left onto Durrell's Bridge Road. At the stop sign of Durrell's Bridge Road and River Road, The School is directly across the street.

#### **FACULTY**

Faculty excellence is the highest priority for The Landing School. The faculty at The Landing School are committed to establishing effective teaching and learning relationships with students both inside and outside the classroom. Educating students to be effective and creative leaders in the marine industry is central to The Landing School's mission. Faculty members excel at developing innovative curriculum and teaching. The Landing School regularly evaluates effective teaching through the assessment of educational objectives and outcomes and provides support for promoting and recognizing excellence in the classroom.

The Landing School enhances teaching excellence through visiting le a variety of perspectives from within the marine industry. Students a see for themselves how each of these programs fits within the marin

Visit our website for a list and bios of current faculty at http://www.lau

#### ADMINISTRATIVE STAFF

Of equal importance to the faculty is the administration of The Land students, parents, partners/spouses, and faculty.

Visit our website for a list of current administrative staff at http://www

#### PROGRAM ADVISORY COMMITTEE

In order to ensure that our students learn techniques that are in hig Committee (PAC) that contributes to curriculum development and revindustries across the domains of design, building, and systems.



#### **GENERAL EDUCATION COURSES**

Students who are enrolled in a diploma program are not required to earn general education credits but may electively take general education courses offered at the School. Students enrolled in the Associate of Applied Science degree program are required to successfully complete 8 credit-hours of applied general education courses in addition to the 6 credits embedded within their technical program (14 credits total). The specific areas of general education studies are:

- · General Quantitative Principles (Math) required (GQ)
- General Written/Oral Communication (English) required (GWO)
- General Natural and Physical Sciences (GN)
- General Social and Behavioral Sciences (GS)
- General Humanities (GH)
- · General Arts (GA)
- · General education courses that support technical learning programs

Associate of Applied Science degree students are required to take two credits of Quantitative Principles and two credits of Written/Oral Communication. Students must then satisfy an additional four credits of additional general education coursework, either using transfer credits or by successfully completing two of the three additional general education courses offered at the School. A grade of a "C" or greater must be earned in a general education course in order to apply credit toward the Associate of Applied Science degree program.

Students may submit general education credits earned at accredited colleges and universities to The Landing School for transfer evaluation. Transfer credits may be accepted for courses that are relevant to careers in the marine industry and meet The Landing School's general education requirements. It is the sole responsibility and authority of The Landing School to accept transfer credit.

#### CHOOSING A DIPLOMA OR A DEGREE

When a prospective student applies for admission to The Landing School, they have the option to pursue a diploma or Associate degree. Students in both the diploma and Associate of Applied Science degree programs study and work together. The difference between the two programs is the amount of time required for completion and the addition of general education courses required for the Associate degree option.

#### Diploma Option

A student who successfully completes a technical program and meets all criteria for graduation is awarded a diploma in their specific area of study: Yacht Design, Wooden Boat Building, Composite Boat Building or Marine Systems. A diploma program requires 8 months to complete.

#### Associate of Applied Science Degree Option

The Landing School offers one Associate degree option: An Associate of Applied Science Degree (AAS) in Marine Industry Technology (MIT). The AASMIT degree requires a student to successfully complete a minimum of 82 credit-hours, which includes technical credits, and general education credits. In addition to completing the 6 general education credits that are embedded within the technical curriculum, students must complete an additional 2 credits in technical mathematics, 2 credits in technical communications and 4 credits in approved general education electives; the School offers elective courses that satisfy this requirement (e.g. Project Planning and Management in the Marine Industry; Management of Marina & Boatyard Operations; Captain's Course), or a student who has completed an approved elective at another institution may petition to transfer those credits. An Associate degree program requires two 8-month technical programs to complete and must be completed within 1.5 times the combined program lengths (i.e. within 6 academic semesters). Given extenuating circumstances, students may petition for additional time in which to complete their degree requirements, and these petitions are reviewed on a case-by-case basis.

#### ASSOCIATE OF APPLIED SCIENCE DEGREE IN MARINE INDUSTRY TECHNOLOGY (MIT)

The MIT Associate degree offers four different concentrations from which a student may choose. This degree provides a broad, yet strong, foundation in marine industry technology and seeks to develop critical thinking skills in graduates. Associate degree program graduates have a wider range of professional opportunities and a better understanding of the marine industry than diploma students. In order to earn an MIT Associate degree, a student must choose one of the following pathways:

**Comprehensive Boat Building:** A student must successfully complete the Wooden Boat Building technical program plus the Composite Boat Building program plus two 1-credit IPAPs plus 8 additional approved general education credits.

**Wooden Boat Building and Yacht Design:** A student must successfully complete the Wooden Boat Building technical program plus the Yacht Design program plus two 1-credit IPAPs plus 8 additional approved general education credits.

**Wooden Boat Building and Marine Systems:** A student must successfully complete the Wooden Boat Building technical program plus the Marine Systems program plus two 1-credit IPAPs plus 8 additional approved general education credits.

Marine Systems and Yacht Design: A student must successfully complete the Marine Systems program plus the Yacht Design technical program plus two 1-credit IPAPs plus 8 additional approved general education credits.

Composite Boat Building and Marine Systems: A student must successfully complete the Composite Boat Building technical program plus the Marine Systems program plus two 1-credit IPAPs plus 8 additional approved general education credits.

Composite Boat Building and Yacht Design: A student must successfully complete the Composite Boat Building program plus the Yacht Design technical program plus two 1-credit IPAPs plus 8 additional approved general education credits.

#### EDUCATIONAL PARTNERSHIPS - BACHELOR'S DEGREE OPTION

#### Southampton Solent University

The Yacht Design program at The Landing School is part of an articulation agreement with Southampton Solent University in the United Kingdom. Southampton Solent University offers one of only two Bachelor's degrees in Small Craft Design available in the world, the Bachelor of Engineering in Yacht Design and Production (Hons). Graduates of the Landing School Yacht Design program who achieve a final GPA of 2.4 or better are entitled to advanced placement in this prestigious degree program, meaning that they can complete a Bachelor's degree in a total of three years. Federal financial aid is available to qualified students who chose to take advantage of this opportunity.

#### Southern New Hampshire University

The Landing School has an articulation agreement with Southern New Hampshire University (SNHU) which allows Landing School graduates to obtain a Bachelor's Degree. Under this agreement, Landing School students who graduate with an Associate of Applied Science Degree in Marine Industry Technology will receive a block transfer of 54 credits toward SNHU's Bachelor of Science in Technical Management. SNHU's course work may be completed through SNHU Online, a regionally accredited program that would allow students to complete their work for their Bachelor of Science in Technical Management no matter where in the world they may live or work.

#### EDUCATIONAL PARTNERSHIPS - APPLIED CREDITS FROM REGIONAL INSTITUTIONS

#### Maine Maritime Academy

The Landing School and the Maine Maritime Academy located in Castine, Maine, together offer two, two-year Associate degrees: one in Small Craft Design and one in Small Craft Systems. Both degrees are awarded by the Maine Maritime Academy. A student in either program completes the first year in residence at Maine Maritime Academy, including a summer internship. Students spend the second year at The Landing School. Students in the Small Craft Design Program are enrolled in The Landing School's Yacht Design Program. Students in the Small Craft Systems Program are enrolled in The Landing School's Marine Systems Program.

For more information about any of these educational partnerships, contact the admissions office at The Landing School at 207-985-7976, inquiries@landingschool.edu.

#### **OBIECTIVE**

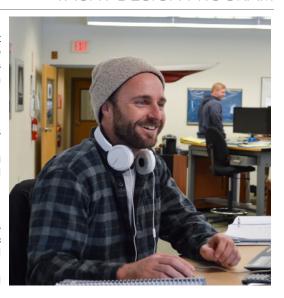
The Yacht Design curriculum is designed to provide students with a structured learning environment in which they can become knowledgeable and proficient in the practical application of the fundamental principles of small craft naval architecture, design, strength, construction and systems and develop the skills to communicate effectively with other industry professionals by verbal, written and graphical means.

#### CAREER OPTIONS FOR GRADUATES

Graduates of the program find entry level employment in the offices of independent design companies and the engineering departments of production and custom boat builders, or self-employment. Landing School Yacht Design graduates are working all over the world designing boats, performing 3D modeling, yacht construction, sail making/ design, technical sales, component design, and project management.

#### PROGRAM DESCRIPTION

The Yacht Design program teaches the technical design process for both power and sailboats from concept through preliminary design. While the curriculum is engineering based, the aesthetic aspects of yacht design are also an important element. The fundamentals of hydrostatics and hydrodynamics form the basis for hullform design. The keels and rudders, rigs, engines, propellers, ergonomics and aesthetics are all considered in the development of interior arrangements, outboard profiles and deck plans.



Structural design and layout is founded on the fundamentals of engineering statics, strength of materials and structural mechanics within industry standards. Students also study system design and installation including engines, shafts, steering systems, tanks, piping, ventilation and electrical systems.

Students begin the first quarter of the program employing manual drafting skills in order to gain appreciation for drawing appearance and layout. The remainder of the year they use CAD software using a networked PC at each student's workstation. Students use industry-standard software for calculations, two-dimensional drafting, three-dimensional hull fairing and general three-dimensional modeling.

Throughout the year, the scope of the studies is supported and extended by lectures by industry experts, field trips and reviews of case studies on business practices and client relations. Students spend much of their time preparing preliminary designs for safe and practical small craft. As a final project, each student prepares a set of preliminary plans and calculations covering multiple salient aspects of the design for his or her own choice of a sailboat, powerboat or commercial craft. A student's designs comprise a portfolio that he or she may use to demonstrate his or her skills and experience when seeking employment.

The Yacht Design program is technical in nature and very demanding. A solid background in algebra, geometry and trigonometry is required. Some exposure to high school level physics is also helpful. The material covered in the school year usually takes two academic years to complete at other institutions. Students devote a substantial amount of time outside of lab and lecture periods in order to successfully complete school assignments and projects.

#### CURRICULUM

The following courses are taught through lecture and lab work as part of the Yacht Design Program:

DSN 110 Introduction to Yacht Design (GA)

DSN 210 Powerboat Design

DSN 120 Introduction to Naval Architecture

DSN 220 Sailboat Design

DSN 130 Marine Engineering: Mechanical DSN 230 Marine Engineering: Electrical

DSN 140 Materials and Construction Methods DSN 240 Theory of Structures and Scantling Rules

DSN 150 Drawing and CAD I

DSN 250 Drawing and CAD II

DSN 260 Design Topics II

DSN 270 Design Project

#### **CLASSROOM SIZE**

The maximum number of students enrolled at one time in the Yacht Design Program is 24.

#### **OBIECTIVE**

The Wooden Boat Building program is a comprehensive, multidisciplinary program designed to teach modern and traditional boat construction techniques, through the building of wood and wood composite craft.

Students in this program construct skiffs, day sailors, or power boats that are made from wood combined with composite materials, such as fiberglass and epoxy. These small vessels may require installation of marine systems (such as steering, bilge pumps, and DC electrical components) or construction and installation of sailing equipment (such as spars, centerboards, and rigging).

#### CAREER OPTIONS FOR GRADUATES

The Wooden Boat Building curriculum has been designed to prepare graduates for a range of entry level employment in building, repairing, or restoring traditional or modern vessels of any size. Alternatively, some graduates of the program have successfully landed positions in cabinet making, furniture construction, custom finish carpentry, and other high quality woodworking careers.

#### PROGRAM DESCRIPTION

Students who select the Wooden Boat Building program receive instruction through formal lectures, field trips, and hands-on projects. The class is divided into crews, and each crew is responsible for building a boat under the supervision of an instructor. From lofting to planking, fairing to finish work, outfitting to sea trials -- Wooden Boat Building students are responsible for all aspects of construction, with a focus on quality and efficiency.



#### **CURRICULUM**

The following courses are taught through lecture and lab work as part of the Wooden Boat Building program:

WBB 112 Woodworking I

WBB 122 Wooden Boat Lofting & Set-Up (GA)

WBB 132 Wood Boat Construction I

WBB 212 Woodworking II

WBB 222 Wood Boat Construction II

WBB 242 Applying Finish in Wood Boat Construction

WBB 252 Outfitting a Wooden Boat

#### **CLASSROOM SIZE**

The maximum number of students enrolled at one time in the Wooden Boat Building program is 18.

#### **BOAT BUILDING PROJECTS**

Instructors of The Landing School's Wooden Boat Building program select the designs for the project boats based upon the depth of information and the skills that students can gain from their construction. Typical projects have included lapstrake plank construction, carvel plank construction, strip plank construction, and cold molded veneer construction. The size and type of boats (sail or power) will vary.

#### **OBJECTIVE**

The Composite Boat Building program instructs students in the design and fabrication of composite components and commercial products, including small, modern boats. Students will learn to build with various non-wood materials such as fiberglass, carbon fiber, Kevlar, and natural fibers.

#### CAREER OPTIONS FOR GRADUATES

The curriculum prepares students to work in a modern composite manufacturing setting with a focus on the fabrication of components of modern composite vessels. A graduate can assume a career as a self-employed or an entry level boat builder, boat repairer or composite technician in the marine industry, or use his/her skills in other manufacturing fields including transportation, energy and aerospace. Examples of alternative career paths that graduates have taken include wind turbine repair, furniture construction, and sports equipment design.

#### PROGRAM DESCRIPTION

The Composite Boat Building program provides a broad education in the rapidly evolving field of composite manufacturing. Students learn how modern composite materials and construction processes are used to create boats of varying sizes in today's commercial boat building industry. The courses are taught through lecture, labs, field-trips and the fabrication of composite parts and the construction of one or more composite boats.



Students study the strength, stiffness and structural mechanics of materials commonly used in composite manufacturing, so they are knowledgeable about the range of choices available to today's boat builders. Students are provided instruction in fabrication techniques using those materials, from hand layup to vacuum-infusion and prepreg part-making in both open- and closed-molding environments.

In the lab-based segment of the curriculum, students work on the fabrication of composite parts. Student-builders construct one or more plugs, molds and parts, starting with the lofting process and including fairing and finishing. Equipment such as plural and single component spray equipment, vacuum bagging, resin infusion and wood working machinery are used.

Throughout the school year, students examine the effects of the various composite materials on the production methods, assess structural strengths first-hand and witness how the choice of materials interfaces with the design and production of a boat.

#### CURRICULUM

The following courses are taught through lecture and lab work as part of the Composite Boat Building program:

COM 110 Composite Shop Practices COM 215 Engineering Basics

COM 115 Drawings, Documentation, and Office Tools
COM 125 Composites Fabrication and Repair Techniques
COM 120 Composite Materials Fundamentals (GN)
COM 230 Problem Solving, Process and Quality Control

COM 150 Composites Tooling COM 235 CAD & CNC

COM 160 Composite Fabrication COM 245 Product Construction

#### CLASSROOM SIZE

The maximum number of students enrolled at one time in the Composite Boat Building program is 18.

#### **BOAT BUILDING PROJECTS**

Instructors of The Landing School's Composite Boat Building program select the designs for the project boats based on the depth of information and skill that students can gain from their construction. In 2016-2017 students built the 21 ft. Landing School American Classic Center console powerboat. Some of the designs commonly built by students in the past include: Landing School Dinghy (10'), Ocean Kayaks (15', 17'), Center Console for the Arundel 19 powerboat, Martha's Tender fiber glass Dinghy (9' 6"). All these projects where built by using closed and open molding fabrication techniques, including the fabrication and construction of the tooling for these boats.

#### **OBIECTIVE**

The Marine Systems program teaches the skills and knowledge necessary to install, maintain and repair today's increasingly complex boat systems using established industry standards. American Boat and Yacht Council (ABYC) standards are integrated into the curriculum, so students are prepared to take the ABYC marine systems certification exam.

#### CAREER OPTIONS FOR GRADUATES

The curriculum prepares graduates to find employment as entry level marine systems technicians for manufacturers, service yards, custom builders and yacht owners.

#### PROGRAM DESCRIPTION

Students in the Marine Systems program learn to install, maintain and repair marine electrical and mechanical systems through formal lectures, labs, field trips and hands-on work on actual vessels and vessel systems.

The curriculum begins with the basics of mechanical fastenings and the use of hand tools. The student's ability to assemble and disassemble equipment grows as their hand skills develop. Instruction continues with lectures and labs designed to create a comprehensive understanding of gasoline and diesel engines, basic composite construction and repair, electrical theory, wiring, pumps and plumbing. Students learn about bilge and sanitary systems, electrical systems, propulsion systems, sailboat rigging, steering and controls, refrigeration and air-conditioning, and



how these systems are integrated. Students gain confidence that they will be able to troubleshoot, service, and install all of the equipment common in a modern yacht. The Marine Systems Program simulates a work environment in a real world boat shop with an emphasis on developing a professional work ethic.

#### **CURRICULUM**

The following courses are taught through lecture and lab work as part of the Marine Systems program:

MST 115 Shop Methods and Materials

MST 125 Propulsion

MST 140 Electricity Concepts (GN)

MST 145 Applied Electrical I

MST 170 Project Boat I

MST 210 Marine Plumbing

MST 230 Marine Special Topics - Mechanical

MST 245 Applied Electrical II

MST 265 Project Boat II: Planning and Management

MST 270 Project Boat III: Service and Repair

#### **CLASSROOM SIZE**

The maximum number of students enrolled at one time in the Marine Systems program is 30.

#### PROIECT BOATS

The Marine Systems faculty selects project boats based on the depth of information students can gain from the boat's components and the opportunity for associated repair and maintenance skills development. Typical marine systems projects have included engine repowers, installation of solar panels, the addition of a bow thruster, and upgrades of electrical distribution systems.

#### **OBIECTIVE**

The goal of our Boatyard Management Program is to teach and illustrate the skills and knowledge necessary to be an effective manager in the marine Industry. Through course work and hands on management of projects taking place on campus, the Boatyard Management students will gain first hand experience managing all aspects of a project from start to finish.

#### CAREER OPTIONS FOR GRADUATES

The curriculum prepares graduates to find employment as entry level department leads, project managers, service managers, or yard managers in the marine industry.

#### ADMISSIONS CRITERIA

Students who have completed at least one of our other programs may apply to the Boatyard Management Program. An admissions committee of three will evaluate applicants based on previously demonstrated shop/classroom performance, work ethic, and quality of work. In addition, admission may be offered to candidates who do not already have a Landing School diploma but have significant industry experience and would like to advance their career into management.



#### PROGRAM DESCRIPTION

Students in the Boatyard Management Program will learn to manage marine related projects and personnel through hands on experience with real projects onsite here at the school. The curriculum begins with a course in Fundamentals of the Marine Industry to level-set all students entering the program, regardless of which Landing School program they previously completed. During the first semester students will also take courses in safety and compliance, planning and estimating, ABYC standards, and service management. These courses will provide the tools and knowledge the Boatyard Management students will need to manage small teams of first year students in our Marine Systems Program. During the second semester project management takes a front seat, and the majority of the Boatyard Management students' time will be spent managing the teams of Marine Systems students working on "project boats." In addition to this direct experience managing real projects and teams, the Boatyard Management students will be introduced to financial management, marina management, and organizational behavior during the second semester. The students will also participate in a full-time three week externship where they will shadow an established lead or manager in the marine industry.

#### **CURRICULUM**

The following courses are taught through lecture and lab work as part of the Boatyard Management Program:

BYM 110 - Fundamentals of the Marine Industry

BYM 120 - Project Planning and Estimating

BYM 130 - Safety and Environmental Compliance

BYM 140 - ABYC Standards Exam Prep

BYM 150 - Service Management

BYM 210 - Project Management in Action

BYM 220 - Financial Management in the Marine Industry

BYM 230 - Marina Management

BYM 240 - Organizational Behavior and Problem Solving

BYM 250 - Externship

#### **CLASSROOM SIZE**

For Academic Year 2023-24, the maximum number of students to be enrolled in the Boatyard Management program is 8.

#### PROIECT BOAT MANAGEMENT

The Boatyard Management and Marine Systems faculty select project boats based on the depth of information students can gain from the boat's components and the opportunity for an interesting and complex project management experience. The projects can range from engine repowers, engine rebuilds, electrical wiring, diesel hybrid conversions, and electronics package installs, to structural repairs and fuel tank replacements. The Boatyard Management Program students will oversee the projects and spend time working with the Marine Systems students on project planning, engineering, technical drawing and ultimately completion of the boat and delivery to the boat owner.



### COURSE CURRICULA A

#### YACHT DESIGN PROGRAM

#### DSN 110 - Introduction to Yacht Design (GA), 3 credits Prerequisites: None

Students learn the importance of the Design Spiral applied to the history and principles of design, including small craft design methodologies, parametric studies, weights and centers calculations, deck and cockpit geometry, ergonomics, general arrangement, deck layouts and aesthetics. Practical design projects are a significant portion of the course work.

#### DSN 120 - Introduction to Naval Architecture, 3 credits Prerequisites: None

Students learn the fundamental elements of hull geometry, resistance/propulsion, and stability. Topics covered include: the lines drawing, hull form characteristics and coefficients, hydrostatics, elements of resistance, powering predictions, propeller operation and selection, transverse stability, and the effect of weights on sinkage and trim.

#### DSN 130 - Marine Engineering - Mechanical, 3 credits Prerequisites: None

Students learn small craft system design and installation requirements for engines, drivetrains, and tankage; and for mechanical systems such as plumbing, sanitation, ventilation, and air conditioning.

#### DSN 140 - Materials and Construction Methods, 3 credits Prerequisites: None

Students are introduced to the materials and construction methods used in contemporary boats. They will learn about simple axial, planar and bending stresses, the stress/strain diagram, and the characteristics of common boatbuilding materials such as composites, aluminum and steel. They will also learn about the general structural geometry of small craft and the common construction techniques.

#### DSN 150 - Drawing and CAD I, 3 credits Prerequisites: None

Students learn the basics of sketching, technical drawing by hand, 2-D computer aided design (AutoCad) and 3-D surface modelling & rendering (Rhino3d). Students are also introduced to ORCA (for hull design, analysis and naval architecture calculations).

#### DSN 160 - Design Topics I, 3 credits Prerequisites: None

Students learn to use computer office tools and project management skills. A series of guest speakers from industry and visits to relative facilities and events are included as industry enhancement elements.

#### DSN 210 - Powerboat Design, 2 credits Prerequisites: DSN 110/120

Students learn design subject matters specific to, and prepare a design study for, a planing powerboat. Topics include: hull form, arrangements, outboard profiles, advanced propeller selection, rudders and steering systems, and inboard drive trains.

#### DSN 220 - Sailboat Design, 2 credits Prerequisites: DSN 110/120

Students learn design subject matters specific to sailing yachts, including sailing performance, stability and seaworthiness, and deck arrangements as they relate to sailing requirements. They also learn specific sailboat construction requirements for elements such as the rig, keel and rudder.

#### DSN 230 - Marine Engineering - Electrical, 2 credits Prerequisites: DSN 110/120

Students learn the design and installation requirements for small craft electrical systems. Topics covered include DC and AC electrical systems, batteries, generators, inverters, and charging systems. Students prepare suitable electrical schematics.

#### DSN 240 - Theory of Structures and Scantling Rules, 2 credits Prerequisites: DSN 140

Students apply theoretical structural design concepts to the design of metal and composite boats and their component parts, including the derivation of composite Students will learn to perform more advanced stress and deflection calculations, including the inertia and section modulus of built-up and composite sections. Students will learn to combine that information with the information from DSN 140 to analyze and calculate the structural requirements for small craft such as hull plating, stiffeners and other components. They will also become familiar with the classification society rules for determining those requirements ("scantlings").

#### DSN 250 - Drawing and CAD II, 2 credits Prerequisites: DSN 150

Students learn enhanced applications of drawing and computer aided design (CAD) techniques, focusing on advanced 3D modelling techniques, CNC considerations, surface modelling and rendering.

#### DSN 260 - Design Topics II, 2 credits Prerequisites: DSN 160

Students continue visiting marine industry businesses, learning topics of importance to a small craft designer including variations in design approaches, design office practices, and client/customer relationships.

#### DSN 270 - Design Project, 6 credits Prerequisites: DSN 110/120/130/140/150/160

Students bring together the knowledge and skills learned in the earlier part of the program to produce a preliminary design for a safe, technically sound, appropriate and attractive boat to match the given design brief. The boat may be a power or sail mono-hull, typically between 30 and 65 feet (9 to 20 meters) overall length, with some cruising accommodations. The results of the project also form a significant portfolio to assist the student as he/she seeks employment.

#### WOODEN BOAT BUILDING PROGRAM

#### WBB 112 - Woodworking I, 5 Credits, Prerequisites; None, Co-requisites: None

This course introduces students to: shop safety; the use and basic maintenance of hand and power tools; tool sharpening; basic project planning, execution, and completion; and shop clean up procedures. A primary focus of the course is the development of a shop culture, intent on safe, effective, and quality driven project execution and completion. Students are introduced to what it takes to be a productive member of the marine industry with a good work ethic.

#### WBB 122 - Wooden Boat Lofting & Set-Up (GA), 5 Credits, Prerequisites; None, Co-requisites: None

This course introduces students to boat plans, and the boat building process and sequence, beginning with lofting. Lofting is the process of transferring a scaled set of boat plans to an actual full size graphic representation of the boat to be built. After learning the lofting process, students will work in crews to build a strongback, lay out, construct, set up, and fair molds, and prepare for the planking process.

#### WBB 132 - Wooden Boat Construction I, 8 Credits, Prerequisites; None, Co-requisites: None

In this course students begin the construction of the WBB project boat. Using the lofting as a reference, they will create templates and build interior parts, such as the stem, transom, keel, and chines. In preparation for planking, the crews will set up the backbone. Although students will be introduced to a variety of planking methods, they will focus on a chosen planking method to fabricate and hang planks on their project boat. Students will also begin recording time spent on the various tasks at hand.

#### WBB 212 - Woodworking II, 5 Credits, Prerequisites; None, Co-requisites: None

In this course students will develop an advanced understanding of hand, power, and stationary tools. The course introduces project management skils, and requires students to estimate time and materials for tasks associated with the project boats, as well as other assignments.

#### WBB 232 - Wood Boat Construction II, 5 Credits, Prerequisites; None, Co-requisites: None

In this course students will gain a deeper understanding of how to read boat plans. With the plans and lofting as their guide, students will create patterns, then cut, shape, fit, and install interior parts and structural components within their project boat. In addition, students will be introduced to a variety of techniques for fairing a wooden boat, including the hull and deck. Students will be taught to lay glass and/ or boat cloth over parts of a wooden boat. They will start estimating materials and will continue to record time spent accomplishing tasks. Lastly, students will continue to be exposed to marine industry nomenclature and terminology.

#### WBB 242 - Applying Finish in Wood Boat Construction, 4 Credits, Prerequisites; None, Co-requisites: None

In this course students will review a variety of techniques for fairing a wooden boat hull and deck. They will be introduced to a variety of paints, stains, varnishes, sealers, and oils used in the marine industry, and learn proper surface preparation and product application.

#### WBB 252 - Outfitting a Wooden Boat, 4 Credits, Prerequisites; None, Co-requisites: None

In this course students will be introduced to a variety of components used to outfit a boat. Specific components will depend on the project boat under construction. If the project boat is a sailboat, students will fabricate and shape spars, install rigging, and splice lines. Other possible components include deck hardware and electrical components -- such as bilge pumps, running lights, and navigational systems.

Note: All wooden boat building students are required to fulfill the 1-credit Technical Elective IPAP requirement.

#### COMPOSITE BOAT BUILDING PROGRAM

#### COM 110 - Composite Shop Practices, 2 credits, Prerequisites: None

Students will learn how to work safely in a composite shop environment, including the safe operation of power tools and handling of materials. Students will learn how to calculate simple geometry problems including perimeters, areas, and volumes and how to measure accurately and execute fundamental measurement conversions.

#### COM 115 - Drawings, Documentation and Office Tools, 3 credits, Prerequisite: None

Students will learn the fundamentals of how to read and create technical drawings, including trhe effective use of tolerencing. Students will learn how to create professional technical specifications using word processors, spreadsheets and presentations.

#### COM 120 – Composite Materials Fundamentals (GN), 3 credits, Prerequisite: None

Students will learn the fundamental properties and uses of various materials used in composite manufacturing including fibers (glass, carbon, aramid), fabrics (chop strand mat, fiber reinforcement clothes) thermoset resins (polyesters, vinyl esters, epoxies), and various core materials. Students will start to learn how to use these materials in simple applications using a variery of resin systems.

#### COM 150 – Composites Tooling, 5 credits, Prerequisite: None

Students will learn the complete composite plug and mold fabrication process. Students will learn multiple mold construction methods, lofting, tooling design criteria, tooling surface preparation (sand and buff to mold surface gloss finish), and specific composites materials used for this process.

#### COM 160 - Composites Fabrication I, 5 credits, Prerequisite: None

Students learn to fabricate simple parts using open molding fabrication processes including hand lamination and spraying applications. Students are introduced to and fabricate simple parts using closed molding fabrication processes such as vacuum infusion process, resin transfer molding, light resin transfer molding, thermoforming, etc. This course covers the techniques of solid laminate construction, cored laminate construction, and coatings applications, as well as quality control and management measures to create quality composite parts.

#### COM 215 - Engineering Basics . 3 credits. Prerequisite: COM115

Students learn the basics of structural design and material properties as they relate to composite boat building. Emphasis is placed upon evaluating and comparing composite laminates and understanding loads, load paths and stresses in common structures. Students will build on what they learned in COM 115 to create accurate professional laminate schedules and drawings. Students will be exposed to destructive testing to validate expected strength and stiffness targets of laminates.

#### COM 225 - Composite Fabrication and Repair Techniques, 3 credits, Prerequisite: COM160

As a follow up to COM160, students learn more in depth about closed molding fabrication processes including vacuum bagging and infusion processes. Students are also introduced to use of pre-impregnated fabrics (prepregs), curing ovens, honeycomb cores, cored laminate, as well more extensive cosmetic and structural repairs. Students learn how to evaluate, deconstruct, and repair damaged laminates including structural laminates and gel coat repair.

#### COM 230 - Problem Solving, Process and Quality Control, 3 Credits: COM160

Students will learn the importance of formal process and quality control as well as an introduction to employee management, problem solving and professionalism in the workplace. Topics include process control, material control, fundamentals of thermocouples and standard operating procedures.

#### COM 235 - CAD & CNC, 3 credits, Prerequisite: None

Students will be introduced to and explore the capabilities of computer aided design (CAD) software used in the Composite Boat Building industry. Students will learn how create 2D drawings and 3D surface models. Students will learn how to export 3D CAD models to CNC milling software and how to machine simple parts on a three-axis router.

#### COM 245 – Product Construction, 6 credits, Prerequisites: COM160

In this course, students apply what they have learned to date in the development and production of a composite consumer product, typically a small recreational boat. Students will work in a team environment using both open mold and closed mold fabrication techniques to produce a high-quality customer ready product.

Note: All composite boat building students are required to fulfill the 1-credit Technical Elective IPAP requirement.

#### MARINE SYSTEMS PROGRAM

#### MST 115 - Shop Methods and Materials, 5 credits, Prerequisites: None

Students will be engaged in several fabrication labs that will develop their skills in tool use, measuring, sketching and layout drawing. Students will learn about fastener identification, and material ordering. Students will also be instructed in good working habits such as shop safety, cleaning and protecting your work space, and work documentation. Students will be introduced to the use of composites in boat building, different fibers and resin systems, and fiberglass repair methods. Students will learn how to use composite fabrication techniques to create support structures for system installations..

#### MST 125 - Propulsion, 5 credits, Prerequisites: None

Students learn the principles of the internal combustion engine, differences between four stroke and two stroke, spark and compression ignition, drive shafts, and propellers. They will become familiar with engine architecture and engine support systems and learn about different types of propulsion arrangements, such as outboards, inboard outboards, and pod drives. Students will be introduced to engine installation and alignment, and how to troubleshoot fuel and electrical systems. Labs include the disassembly of several engines, valve adjustment, engine alignment, and engine installation planning.

#### MST 140 – Electricity concepts (GN), 3 credits, Prerequisites: None

Students will gain an understanding of DC and AC electricity, basic battery chemistry, methods of calculating voltage, amperage and wattage, and the relationship between electricity and magnetism. Students will draw electrical schematics and learn basic meter usage. Students will be introduced to corrosion, the galvanic scale and its importance to boats and boat systems.

#### MST 145 – Applied Electrical I, 3 credits, Prerequisites: MST 140

Students will learn installation methods for DC electrical systems. They will apply ABYC standards to properly size conductor and overcurrent protection, and will become familiar with methods to install, troubleshoot, and repair these systems using industry best practices. For a final project, students will wire a bench mock-up of a boat's DC electrical system.

#### MST 170 – Project Boat Work I, 2 credits, Prerequisites: None

Students will see real world examples of systems installations on boats. They will begin to develop trouble shooting techniques and practice hands-on skills. Generally this is done while troubleshooting and disassembling systems that will be replaced or repaired during the Spring semester.

#### MST 210 - Marine Plumbing, 2 credits, Prerequisites: MST 115/125

Students learn about common plumbing systems found aboard boats and how to design and construct black water, grey water, and potable water systems for marine applications.

#### MST 230 – Marine Special Topics, 3 credits, Prerequisites: MST 115/125/140/145

The purpose of this course is to cover selection and installation of windlasses and ground tackle; selection and installation of bow thrusters; mechanical and hydraulic steering; trim tabs; CNG and LPG systems. Labs will include assembling a hydraulic steering system, and hydraulic trim tabs. Students will also be introduced to the principles of refrigeration and water makers.

#### MST 245 – Applied Electrical II, 3 credits, Prerequisites: MST 140/145

Students will study ABYC standards for safe installation of AC electrical wiring on boats. Students will learn about shore power connections, source selection switching, and mitigating corrosion. Students will wire a functional bench mock-up of a boats AC shore power system. Students will learn about radar, VHF, autopilots and other navigation and communication electronics. Students will be exposed to network equipment and more advanced electrical systems such as solar and wind chargers, high-tech batteries, and electric propulsion.

#### MST 265 - Project Boat II - Planning and Management, 3 credits, Prerequisites: MST 115/125/140/145/170/210

Students are introduced to project estimating, planning, parts ordering, and elements of project management. These topics are directly applied to project boats.

#### MST 270 - Project Boat III: Service and Repair, 7 credits, Prerequisites: MST 115/125/140/145/170/210

Students will integrate all prior coursework and apply their knowledge and skills to real-world interdisciplinary challenges on project boats

Note: All marine systems students are required to fulfill the 1-credit Technical Elective IPAP requirement.

#### **BOATYARD MANAGEMENT PROGRAM**

#### BYM 110 - Fundamentals of the Marine Industry, 4 credits, Prerequisites: None

Boatyard Management program students from diverse backgrounds in the Marine Industry will be "level-set" in this course so that they will all be able to participate with an equal amount of baseline knowledge. Topics covered are: Basic AC and DC Electrical, Principles of Vessel construction, ABYC standards, fuel system basics, plumbing basics, general composites knowledge, general wood shop knowledge.

#### BYM 120 - Project Planning and Estimating, 3.5 credits, Prerequisite: None

Students are introduced to the Marine Systems Program project boats for the year and begin to establish a plan for the boats by assessing needs and talking to the boat owners. Students will be responsible for customer interaction, contract writing, estimating and product research.

#### BYM 130 - Safety And Environmental Compliance, 3 credits, Prerequisite: None

Students will be introduced to the key safety regulating bodies in the marine industry and will be educated in the requirements established to run a safe and legal facility. Topics include Personal Protective Equipment (PPE), requirements related to OSHA (Occupational Safety and Health Organization), Volatile Organic Compounds (VOC's), EPA regulations, water quality, fire protection and certification, as well as fuel and oil storage, CPR certification is included.

#### BYM 140 - ABYC Standards Knowledge Exam Prep, 2 credits, Prerequisite: None

Students will be expected to take the ABYC Standards Knowledge Exam in the second semester of the Boatyard Management program. Prep and tutoring for this exam will begin in the fall semester and will include a comprehensive and focused look at key ABYC Standards. Specific compliance issues relevant to engineers, installers, compliance inspectors, and marine surveyors, among others, will be addressed.

#### BYM 150 – Service Management, 2 credits, Prerequisite: None

Students will take what they are learning in BYM 120 Planning and Estimating, and start integrating budgets and invoices into their project boat work. They will learn to assess what's needed - including tools, equipment, and facilitity space - to perform or expedite specific tasks on the project boats. They will begin to work with the Marine Systems students in an administrative capacity, including evaluating skill levels and assigning tasks, all with the goal of keeping the projects running smoothly.

#### BYM 210 - Project Management in Action, 8 credits, Prerequisite: BYM120

By the second semester, the Boatyard Management students will be spending time with the Marine Systems students on a dailiy basis, as they begin actual work on the project boats. Building on the skills they learned during the first semester, the BYM students will customer interaction in the form of change orders, parts researching and ordering and making engineering decisions with the help of the Marine Systems and Boatyard Management faculty will all take place as regular course of business for the duration of the project.

#### BYM 220 – Financial Management, 2 credits, Prerequisite: BYM150

Students will be taught the financial requirements needed to successfully manage a business whether for an existing employer or with an eye toward future self-employment. The course will cover topics related to tax law, insurance, payroll, leasing and managment, purchasing of equipment and property, accounts recievable and payable, and more.

#### BYM 230 - Marina Management, 3.5 Credits: BYM150

How is marina management similar and different from boatyard management? The Marina Management course will focus on marina design, master planning, and permitting. Marketing and branding will also be discussed. We will take field trips to local marinas and talk to managers at these facilities in small groups, to learn as much as possible from established marina managers.

#### BYM 240 - Organizational Behavior and Problem Solving, 2 credits, Prerequisite: BYM120

In this course students will discuss the soft skills required to be a good manager. including strong communication, negotiation, and leadership skills. Students will be presented with case studies and tasked with discussing and resolving real-world boatyard management problems. Individually and in small groups, students will present their ideas and solutions to the class, for discussion.

#### BYM 250 – Externship, 2.5 credits, Prerequisites: None

During a full-time three week externship, students will be given a chance to gain first hand experience shadowing a manager or lead in the industry and learning from someone with years of practical knowledge. Spending time in an established boatyard or marina the students will call on all they've learned in the program so far and put it into a context that can only be gained with hands-on work in the field. They will get to see how the soft skills, and the technical business knowledge they've been learning are practically applied in a real for-profit business environment.

#### INTER-PROGRAM ACTIVITY PERIOD (IPAP)

IPAP 100 – Inter-Program Activity Period Technical Elective I, 1 credit, Prerequisites: successful completion of fall semester technical courses
First year students broaden their knowledge and skills by proposing a two-week independent study off campus, or selecting a one-week short course on campus (e.g. a yacht design student may choose to study wooden boat building, composite boat building, or marine systems). Both options take place during the January IPAP period (please see the Calendar on the last page of this Catalog).

IPAP 200 – Inter-Program Activity Period Technical Elective II, 1 credit, Prerequisites: successful completion of IPAP100 and fall semester technical courses Second year students broaden their knowledge and skills by proposing a two-week independent study off campus, or selecting a one-week short course on campus. Both options take place during the January IPAP period (please see the Calendar on the last page of this Catalog).

#### **GENERAL EDUCATION**

ENG 110 - Technical Communications (GWO), 2 credits Prerequisites: None

Students learn effective methods of oral, written, and graphic communication for customer service and technical applications in the marine industry.

MAT 110 - Technical Mathematics (GQ), 2 credits Prerequisites: None

Students learn the basic mathematics used by boat builders, designers, and marine technicians, through topics including: the real number system (rational numbers, fractions); decimals, percentages and ratios; exponents and roots; integers; measurement systems; graphs (rectangular and polar coordinate systems); geometry (area, volume, estimation techniques, Pythagorean Theorem); Introductory algebra (manipulating and solving equations).

BUS 110 - Project Planning and Management in the Marine Industry (GS), 2 credits Prerequisites: None

Students acquire the skills and insights used by first-line supervisors, including: deterministic and probabilistic project planning, project management, decision-making, and Leadership.

BUS 120 - Management of Marina and Boatyard Operations (GN), 2 credits Prerequisites: None

Students learn basic marine enterprise tools, regulations and their related science, and best practices for marina and boatyard management.

TECH 110 - Captain's Course (GN), 3 credits Prerequisites: None Co-requisites: None

The Landing School typically offers The Captain's Course each spring, which can be used to satisfy general education requirements. The Operator of Uninspected Passenger Vessels (OUPV) portion of the course covers the classroom work and exams required for the student to satisfy the OUPV licensing requirements. This portion of the course is divided into 4 sections; Navigation General, Chart Plotting, Rules of the Road and Deck General. The GT Masters portion of the course will follow the completion of OUPV. Sea time is not covered by the course. A minimum of 360 days of experience on a vessel (90 days within the last 3 years) is required to receive an OUPV. This course is taught by an outside vendor and is subject to an additional fee.

#### SHORT COURSES

In addition to ACCSC accredited programs leading to a diploma or a degree, The Landing School may offer short-courses in marine industry topics, taught by Landing School faculty and/or other industry experts. When these opportunities arise, they will be posted on our website.

#### FALL SEMESTER, 2023

July 1, 50% Tuition and Fees due

August 4, Balance of tuition and fees due

September 5, Tuesday, Fall Registration Day: 10 am - 4 pm

September 5, Tuesday, Welcome lunch for students and families: 12 pm

September 6, Wednesday, Fall semester classes begin

October 9, Monday, No school: Indigenous Peoples Day

November 10, Friday, No school, in honor of Veterans Day

November 17, Friday, Last day of classes before Thanksgiving Break

November 20-24, Monday - Friday, No school: Thanksgiving Break

November 27, Monday, Classes resume

December 21, Thursday, Last day of classes before winter break, end of fall semester

December 22, Friday – January 1, Monday, No school: Winter break (will vary according to IPAP plans)

#### INTER-PROGRAM ACTIVITY PERIOD (IPAP), 2024

All students are required to select Option 1 or Option 2

Option 1: January 2, Tuesday - January 12, Friday: Two-week Independent Study (off campus)

Option 2: January 8 Monday - January 12, Friday: One-week Short Course (on campus)

#### SPRING SEMESTER, 2024

January 15, Monday, No school: Martin Luther King Day

January 16, Tuesday, Spring semester classes begin

February 19, Monday, No school: Presidents Day

March 8, Friday, Last day of classes before spring break

March 11-15, Monday - Friday, No school: Spring break

March 18, Monday, Classes Resume

March 29, Friday, No school: Good Friday

April 15, Monday, No school: Patriot's Day

May 17, Friday, Spring semester ends, reception for families

May 18, Saturday, Graduation Ceremony

Note: Snow days will be made up as needed and at the instructors' discretion.







Version 1.0.0	November 30, 2022	Initial Release
Version 1.1.0	January 18, 2023	Amended Letter of Recommendation Requirement
Version 1.1.1	February 1, 2023	Corrected tuition payment dates in calendar
Version 2.0.0	May 31, 2023	Added Boatyard Management program overview page & course listing page
Version 2.1.0	August 9, 2023	Added New Mission Statement & amended Student Complaint Procedure and Tuition Refund Policy

