



Welcome

ABOUT NIIMBL bioLOGIC™

NIIMBL bioLOGIC[™] is a project-based learning program developed by The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL). The program focuses on three pillars: engagement with advanced technologies, familiarization with the principals of entrepreneurship, and exposure to the education and career pathways that lead into the advanced manufacturing sector. These focus areas are wrapped around a student-led, design-thinking approach that allows participants to concentrate on a problem area that holds real meaning for them and apply what they learn about technology and entrepreneurship to a real-world challenge.

During the program, students will work in teams of 4-6 to:

Identify a real-world problem

Conceptualize an advanced product solution

Create a business model around the product

Build a pitch deck and 3-4 minute pitch they will deliver to a panel of representatives in a professional style setting

The program is designed to allow teachers, students, and program managers to take advantage of the unique and recurring opportunities available in your community. Each program will look slightly different than others due to the unique combination of students, teachers, industry advisors, school schedules, and opportunities that come together during the iteration. Don't be afraid to incorporate one-off events as they become available. You do not need to repeat anything except the "seven core touch points".

Neither students nor teachers need any technological background to run NIIMBL bioLOGIC, although technical learning objectives can be easily embedded if desired. For non-technical classes, the Student Workbook will guide participants through conceptualizing their driving technology using a simplified, logic-based approach.

The NIIMBL bioLOGIC program is designed to be easily integrated into an existing class structure, allowing the classroom instructor to accommodate their own learning objectives. The program is completely course agnostic, and the agile curriculum works in classes ranging from English to Economics, Biology, Business, and Technology classes. Teachers can insert their own learning objectives (technical or otherwise) to support their subject material. See the Instructor Guide for examples of the kinds of assignments that fit well for different subject areas.

Through the research and work associated with the program, students learn how to approach and solve complex problems and communicate their findings to an audience. Field trips to industry and higher education help students learn how to interact with industry advisors, provide perspective on the professional opportunities available in the advanced manufacturing and technology sectors, and increase awareness of the education pathways required to work in these fields. Along the way, NIIMBL bioLOGIC helps educators achieve a broad range of learning objectives including:

College Readiness

Problem Solving

Career Readiness

Judgment

Career Technical Education

Adaptability

Direct Industry Engagement

Leadership

Project Management

Teamwork

Argument Development

Professional Communication

Creative Reasoning

Public Presentation

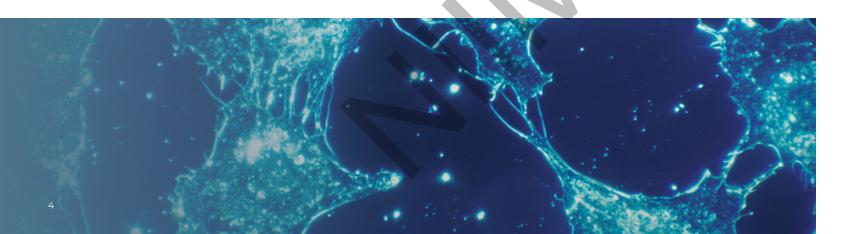
Critical Thinking

The program is deliberately light on instruction and prescription: the goal is for students to learn how to approach and solve open-ended, complex problems in new and creative ways through an immersive learning experience. This lack of prescription results in what we like to refer to as a "low floor, high ceiling". Some students will excel in this agile environment and dig deeply into the program; others will struggle. Both results are acceptable, and students will learn something no matter where they fall on this spectrum. Far better to learn the stresses of being unprepared for a public speaking event at age 15 than at age 25.

One of the most valuable aspects of the program is its ability to connect students with people they never would interact with otherwise. Over the course of these engagements, students may receive contradictory feedback about their projects. It is important to highlight that this is a normal part of product and business development; it is the job of the team to carefully consider all feedback, and decide which to implement and which to ignore.

NIIMBL bioLOGIC's goal is not to provide each student with a cookie cutter experience that dictates exactly how to approach this project, but rather to provide all students with the skills, tools, and opportunities they need to visualize and pursue career fields and areas they find fulfilling and rewarding.

This goal is something you should be prepared to explain to program participants, including students, teachers, high school district representatives, industry advisors, panelists, and others. First time participants are frequently confused by the lack of structure and prescription in the program, and wish to provide students with templates, examples, and other sources of inspiration. Learning to describe the benefits of helping students become comfortable without direction, confident in their ability to solve complex and open-ended problems, and experienced in leading their own research will help ensure that students are able to maximize the potential outcomes and benefits of the program.



Welcome

ABOUT THE NATIONAL INSTITUTE FOR INNOVATION IN MANUFACTURING BIOPHARMACEUTICALS (NIIMBL)

The mission of the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) is to accelerate biopharmaceutical manufacturing innovation, support the development of standards that enable more efficient and rapid manufacturing capabilities, and educate and train a world-leading biopharmaceutical manufacturing workforce, fundamentally advancing U.S. competitiveness in this industry. NIIMBL is part of Manufacturing USA®, a network of federally sponsored manufacturing innovation institutes, and is funded through a cooperative agreement with the National Institute of Standards and Technology (NIST) in the U.S. Department of Commerce with additional support from its members. Together with partners from industry, academia, non-profits, and government agencies, NIIMBL collaborates on innovative manufacturing technologies to bring lifesaving medicines to market faster and at reduced cost, while maintaining safety and efficacy. In addition, NIIMBL strives to cultivate a world-leading biopharmaceutical workforce through novel training and education programs.

NIIMBL bioLOGIC[™] was designed to introduce students to the transformative potential of biopharmaceutical manufacturing. The program aims to build awareness about the diversity of opportunities available.





BIOPHARMACEUTICALS - AN OVERVIEW

Before beginning the project, it is important to understand biopharmaceuticals and the kinds of medical needs they can address. These medicines have the potential to prevent, treat, and cure many diseases or health conditions. Unlike traditional pharmaceuticals such as acetaminophen that are made through chemical processes, biopharmaceuticals are manufactured using living organisms, are inherently biological in nature, and are mostly administered by injection or infusion.

Biopharmaceuticals have great potential and are revolutionizing healthcare in their ability to treat, prevent, and cure even the most debilitating and deadly health conditions. For example:

Protein therapeutics treat health conditions. Protein therapeutics such as monoclonal antibodies help the body's immune system in treating diseases such as Crohn's disease, rheumatoid arthritis, and some types of cancer.

Vaccines prevent diseases and even some cancers. Vaccines mimic the infectious agent or cancer cell and train the body's immune system to fight the pathogen or pathogenic cells.

Cell and gene therapies cure diseases. Cell and gene therapies are newer classes of biopharmaceuticals. Gene therapy replaces or edits defective genes, while cell therapy engineers cells to fight or cure diseases such as cancer.

Timeline

CAREER READINESS WORKSHOP

The Career Readiness (C.R.) Workshop takes place prior to Kick-Off and teaches students about business communication and etiquette and many other topics that will help them in this program and beyond.

PHASE 1 PROBLEM IDENTIFICATION

KICK-OFF

Kick-Off (K.O.) is where students are introduced to the program and begin brainstorming problem areas.

PHASE 2 PRODUCT DEVELOPMENT

INDUSTRY DAY

FACILITY TOUR

On Industry Day (I.D.), students tour the Industry Partner's facility, learn about careers, meet people working in the field, and become familiar with the products and processes of advanced manufacturing.

PRODUCT DEVELOPMENT WORKSHOP

During the Product Development (P.D.) Workshop, student teams work on their problem and product concept and give a one-minute practice pitch. The Program Manager, High School Instructor, and Industry Advisor provide guidance and feedback throughout.

PHASE 3 – BUSINESS MODEL CREATION

COLLEGE DAY

CAMPUS TOUR

On College Day (C.D.), students experience a higher education campus first hand and what it is like to be a student there.

BUSINESS MODEL WORKSHOP

During the Business Model (B.M.) Workshop, student teams work on creating the business model for their product concept. The Program Manager provides guidance and feedback.

SLIDE DECK WORKSHOP

The Slide Deck Workshop is a working period for teams to create their pitch decks. The Program Manager and High School Instructor will offer feedback on slide content and layout.

PHASE 4 FINALIZE PITCH AND REHEARSE

FINAL REHEARSAL

The Final Rehearsal is a scheduled class period for each team to run through their final presentations.

FINAL PITCH

The Final Pitch (F.P.) is the culminating event of NIIMBL bioLOGIC, where student teams pitch their final presentations to Panelists and a general audience. Following presentations, Panelists offer feedback and guidance to the students.

Tools

PM.1 STATUS TRACKER

The Status Tracker (PM.I) is a planning tool that documents the touchpoints, tasks, and activities required for a successful program. As a program manager, this document will be one of your most useful tools. You will interact with it daily to keep track of what you've done to date and what must be done today, tomorrow, and beyond. Each iteration, or row, starts as a line of red of "to be confirmed" tasks. As you begin to work your way through the activities, you will transition tasks to yellow if you've started the task activity but its not yet scheduled or finalized. Finally, you'll turn it to green when you know everything is in place and is coordinated for that task to happen successfully.

PM.2 SYNC CHART

The Sync Chart (PM.2) is a program management tool that documents key NIIMBL bioLOGIC activities, to include the seven core touchpoints, on a linear calendar timeline. When multiple iterations are added, whether three or thirty, the Program Manager is able to see when events are scheduled to occur on the calendar taking into account each iteration as well as days of the week, weekends, holidays, and other significant events.





PM.3 ANNUAL METRICS

The Annual Metrics Spreadsheet (PM.3) is an important way to keep track of the students who go through your program. Please populate this spreadsheet as each new cohort is enrolled. The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) will reach out to you at the end of each semester to collect this information, and use it to help convey the impact and value your program is having on your local ecosystem and the national network of NIIMBL bioLOGIC program areas.

PM.4 EMAIL TEMPLATES

Use the provided Email Templates (PM.4) to keep participants on the same page as you move through the NIIMBL bioLOGIC program. Two types of email communication are required, including prompted and scripted. Prompted emails have a short list of details you should communicate, but do not require any strategic messaging. Scripted emails have messaging clearly outlined (you can customize as needed) and can be easily copied and pasted into your preferred email system.

PM.5 NIIMBL BIOLOGIC PRIMER

The NIIMBL bioLOGIC Primer (PM.5) provides a high-level overview of both The National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) and the NIIMBL bioLOGIC program. This is a simple, multi-purpose reference that you can use to educate program participants or potential partners. This document can be shared in person at meetings or events or sent via email.



Industry Advisors

ABOUT

An important part of NIIMBL bioLOGIC's value to the community at large lies in its ability to expose students to STEM-focused education and career pathways through engagement with both student and professional mentors. Partnerships with Industry Advisors provide a depth of knowledge and experience that is critical for the successful operation of the NIIMBL bioLOGIC program in your local ecosystem. Provide the Industry Advisor handout to help orient and onboard new Industry Advisors.

RECRUITING AND ENGAGING ADVISORS

Connect with Corporate Social Responsibility representatives at local companies; see if they are willing to spread the word about the opportunity to attend mentoring sessions and final pitches.

Connect with business and engineering instructors at your College; see if their students would be interested in mentoring opportunities.

Invite individuals from the Industry Partner organization (including those whose jobs do not overlap with Workforce Development or Education) to mentor and panel.

Attend professional events in support of other individuals and/or organizations; invite new people to NIIMBL bioLOGIC events.

Don't forget your own personal network as a resource to get people involved as advisors, even if they do not have technical or business backgrounds, many adults have a lot to offer as an advisor and the students will benefit from the interaction.

Underscore that each opportunity is a one-off (there is no requirement to engage in any future activities).

Be respectful of partner organizations' and industry advisors' time and experience; this is critical for ensuring that volunteers enjoy their experience and are open to future opportunities.

Make it easy for them to say yes; communicate that last-minute cancellation is always fine.

PHOTOGRAPHY & QUOTE BANK

One of the best ways to convey the value of the program to current and future participants and stakeholders is to collect quotes from participants, including students, teachers, district representatives, college faculty and administration, and industry representatives. Taking pictures and videos will help others see exactly why the activities associated with the program are so impactful and compelling. Build up a bank of these resources that you can use to demonstrate the value of the program and thank participants for their time and effort.





Section 1 Overview

Goals

1 ONBOARD THE COLLEGE

Onboard key representatives from the College, make decisions necessary for program implementation, and plan for College Day.

2 ONBOARD THE HIGH SCHOOL

Onboard key representatives from the High School and make decisions necessary for program implementation.

3 ONBOARD THE INDUSTRY PARTNER

Onboard key Industry Partner representatives, make decisions necessary for program implementation, and plan for Industry Day.

4 BEGIN VOLUNTEER OUTREACH

Begin to develop relationships with potential Industry Advisors and Panelists. Send invitations to participate.

People

HIGH SCHOOL

H.S. Instructor H.S. Principal H.S District Coordinator(s)

VOLUNTEERS

Industry Advisors Panelists

COLLEGE

Dean of Business & Workforce Development Outreach Coordinator

INDUSTRY PARTNER

Industry Partner Coordinator

Meetings

ONBOARD THE TEAM

College Meeting
H.S. Meeting
Industry Partner Meeting

Documents

PM PROGRAM MANAGER

PM.6 College Overview Presentation
PM.7 College Meeting Agenda
PM.8 Admissions Presentation Outline
PM.9 Agreement Instructions
PM.10 H.S. Overview Presentation
PM.11 H.S. Meeting Agenda
PM.12 I.P. Overview Presentation
PM.13 I.P. Meeting Agenda
PM.4 Email Templates

GD PARTNER GUIDES

GD.1 College Instructor Guide
GD.2 College Engagement Guide
GD.3 Industry Advisor Guide
GD.4 Panelist Guide

EXTERNAL DOCUMENTS

As outlined in the Agreement Instructions (PM.9), you should document the relationships you're forming with the High School in formalized Partner Agreements.

Onboard the College

1.1 **ABOUT**

Onboard key representatives from the College. You'll review roles and responsibilities, and lay the groundwork for College Day. You will also review the College Engagement Guide (GD.2) to decide on the best way to identify how to formally engage students with the college.

1.2 **PREP**

Schedule the College Meeting with the Dean of Business and Workforce Development, the Outreach Coordinator, and any other applicable representatives.

Prepare to present the College Overview Presentation (PM.6) at the meeting.

Print the following documents and bring them to the upcoming meeting:



PM.7 College Meeting Agenda
 PM.8 Admissions Presentation Outline
 PM.9 Agreement Instructions
 GD.1 College Instructor Guide
 GD.2 College Engagement Guide

1.3 **EXECUTE**

Lead the College Meeting using the College Meeting Agenda (PM.7). Present the College Overview Presentation (PM.6), and review the College Engagement Guide (GD.2) and Admissions Presentation Outline (PM.8).

Cover the following:

♣ : Roles and responsibilities

Common program hurdles

College Day

Decide how to formally engage students with the college

Review the Agreement Instructions (PM.9) and cover the following:

The need for formal agreements with partners

Who will create the agreement

What will be included in the agreement

Who should sign the agreement

1.4 FOLLOW UP

If the college decides to pursue Dual Enrollment, schedule a meeting with the College Instructor and Admissions representatives to onboard them.





Onboard the High School

ABOUT

Gain administrative support within the High School (H.S.) and High School District (H.D.) by onboarding key representatives. You'll review roles and responsibilities, complete contractual documents, make decisions necessary for program implementation, and outline next steps.

PREP 1.6

Schedule the H.S. Meeting with the H.S. Principal(s) and any relevant H.D. Coordinator(s).

Prepare to present the H.S. Overview Presentation (PM.10) at the meeting.

Print the following documents and bring them to the upcoming meeting:



H.S. Meeting Agenda Partner Agreement

EXECUTE 1.7

Lead the H.S. Meeting and refer to the H.S. Meeting Agenda (PM.11).

Present the H.S. Overview Presentation (PM.10).

Cover the following:



Roles and responsibilities

Common program hurdles

College Day and Industry Day

Choosing a H.S. Instructor

: Complete the following documents:



Partner Agreement

Onboard the Industry Partner

ABOUT 1.8

Onboard key Industry Partner (I.P.) representatives. You'll complete contractual documents, review roles and responsibilities, and lay the groundwork for Industry Day.

PREP 1.9

Schedule the I.P. Meeting with the I.P. Coordinator and any other relevant representatives from the company.

Prepare to present the I.P. Overview Presentation (PM.12) at the meeting.

Print the following documents and bring them to the upcoming meeting:



PM.13

I.P. Meeting Agenda Partner Agreement

EXECUTE

Lead the I.P. Meeting and refer to the I.P. Meeting Agenda (PM.13).

Present the I.P. Overview Presentation (PM.12).

Cover the following:



Roles and responsibilities

Rules and requirements

Industry Day

Complete the following documents:



Partner Agreement



It may be a good idea to pilot the program with your industry partner for a semester before formalizing the relationship in a partner agreement.

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Begin Volunteer Outreach

1.11 **ABOUT**

A large part of NIIMBL bioLOGIC's value to the students is real-world experience through engagement with Industry Advisors. Begin to develop relationships with potential Industry Advisors and Panelists and send invitations.

1.12 **PREP**

Review the Industry Advisor Guide (GD.3) and Panelist Guide (GD.4).

1.13 **EXECUTE**

As you add to your network of NIIMBL bioLOGIC contacts, look for potential participants and send an Invitation Email (PM.4) as you see fit.

+ : Attach the Industry Advisor Guide (GD.3) or Panelist Guide (GD.4)





Section 2

Overview

Goals

1 SET THE SCHEDULE

Meet with the H.S. Instructor to review program documents, plans for program implementation, scheduling, and role expectations.

2 SCHEDULE TOUR DATES

Schedule tours with the Industry Partner and College.

3 PREPARE DOCUMENTS

Personalize program documents for the H.S. Instructor and deliver on a USB drive two weeks before Kick-Off.

4 SAVE THE DATE

Send 'save the dates' for the Final Pitch.

People

GH		

COLLEGE

H.S. Instructor Chaperones **Outreach Coordinator**

VOLUNTEERS

INDUSTRY PARTNER

Final Pitch Panelists Industry Advisors **Industry Partner Coordinator**

Meetings

SET THE SCHEDULE

H.S. Instructor Meeting 1

Documents

SD | STUDENTS

All student documents that should be printed for hand-off to students.

SD.1	Student Letter	SD.3	Media Release Form
SD.2	Parent Letter	SD.4	Student Workbook

ID H.S. INSTRUCTOR

Provides an overview of the H.S. Instructor's responsibilities, the program schedule, program implementation documents, and other general information.

ID.I	H.S. Instructor Guide	ID.6	I.D. Itinerary
ID.2	Program Calendar	ID.7	C.D. Map
ID.3	H.S. Instructor Action Items	ID.8	C.D. Transportation Form
ID.4	I.D. Map	ID.9	C.D. Itinerary
ID.5	I.D. Transportation Form	ID.10	H.S. Instructor F.P. Checklist

PM PROGRAM MANAGER

PM.14 H.S. Instructor Overview Presentation

PM.15 School Worksheet

PM.16 H.S. Instructor Meeting 1 Agenda

PM.17 C.D. P.M. ItineraryPM.4 Email Templates

EXTERNAL DOCUMENTS

The College Admissions Presentation should be developed and presented by the appropriate College Partner representative.

Instructions

Set the Schedule

ABOUT

Onboard the H.S. Instructor to the program, set the schedule for key program events, and review roles and responsibilities. You'll also gather all information necessary for personalization of program documents.

2.2 **PREP**

Schedule H.S. Instructor Meeting 1 with the H.S. Instructor.

Review the H.S. Instructor Guide (ID.1).

Prepare to present the H.S. Instructor Overview Presentation (PM.14) at the meeting.

Print the following documents and bring them to the upcoming meeting:



ID.1 H.S. Instructor GuideID.2 Program CalendarPM.15 School Worksheet

PM.16 H.S. Instructor Meeting 1 Agenda



Continue to reach out and build your list of potential program volunteers.

If they're unable to join the program this time, keep a contact list for future NIIMBL bioLOGIC programs.



EXECUTE

Lead H.S. Instructor Meeting 1 and refer to the H.S. Instructor Meeting 1 Agenda (PM.16).

Present H.S. Instructor Overview Presentation (PM.14).

Review the contents of the H.S. Instructor Guide (ID.1).

Complete the following documents:

Program Calendar
PM.15 School Worksheet

Confirm the following:

Roles and responsibilities

Common program hurdles

Scheduling of all program events

Schedule Tour Dates

2.4 ABOUT

Schedule tour dates with the participating Industry Partner and College. Include student registration information.

2.5 EXECUTE

Confirm the schedule for Industry Day using the I.D. Itinerary (ID.6):

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Tour guide has been arranged

Sign-in process has been set up

Parking passes will be available

Identify and reserve a venue for the P.D. Workshop

Confirm the schedule for College Day using the C.D. PM Itinerary (PM.17)

+

Confirm the tour and tour guide are set

Confirm the Outreach Coordinator is scheduled to present the College Admissions Presentation (PM.8)

Confirm that a room with A/V functionality is booked for the B.M. Workshop

If the **B.M. Workshop** will be held on a different day or at a different site, identify and confirm the venue



The **P.D. Workshop** can take place at the Industry Partner's campus, the High School, or the College.

Generally, the easiest option is to host it back at the High School.

Prepare Documents

2.6 ABOUT

Prepare program documents for hand-off to the H.S. Instructor before Kick-Off. Some documents will be digital, some will be printed, and some will need to be delivered in both formats.

2.7 **EXECUTE**

Collect all Student Documents (SD) and H.S. Instructor Documents (ID) on a USB drive for hand-off to the H.S. Instructor. See Section 2 Overview for a complete list.



Student Documents

H.S. Instructor Documents

Personalize the following documents on the USB drive (all others are fine in their generic format):



Facilitate the Dual Enrollment process for students on days you are in the classroom.

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1

ID.2 Program Calendar

ID.3 H.S. Instructor Action Items

ID.4 I.D. Map

ID.5 I.D. Transportation Form

ID.6 I.D. Itinerary

ID.7 C.D. Map

ID.8 C.D. Transportation Form

ID.9 C.D. Itinerary

SD.1 Student Letter

SD.2 Parent Letter

You should print all Student Documents (SD), and distribute to each student on Kick-Off. See Section 2 Overview for a complete list.



SD

Student Documents

Request the H.S. Instructor send a student roster. Include the following:

+

: Full Name, Grade, and Gender



Instructions

Save the Date

2.8 **ABOUT**

The Final Pitch is the culminating event of NIIMBL bioLOGIC. Send 'save the date' reminders to key attendees as soon as possible to ensure attendance.

2.9 **EXECUTE**

Send a 'save the date' email to key administrators at the High School, High School District and College.

↓ : Date and time

High School name

Thank them for their support

: Send the Save the Date Calendar Invite to Panelists.



Future NIIMBL bioLOGIC instructors benefit greatly from seeing a Final Pitch before they run the program, so try inviting other H.S. Instructors from the school.

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Section 3 Overview

Goals

1 CAREER READINESS WORKSHOP

A presentation on professional development.

2 KICK-OFF

The PM presents the Kick Off slide deck, and student teams begin to identify their problem areas.

3 INDUSTRY DAY

Students tour the Industry Partner's facility to learn about new technologies and advanced manufacturing career pathways.

4 PRODUCT DEVELOPMENT WORKSHOP

Program Manager and Industry Advisors meet with student teams to offer guidance on problem-product fit.

5 COLLEGE DAY

Students learn more about the college and admissions process, and tour the campus.

6 BUSINESS MODEL WORKSHOP

PM, H.S. Instructor, and Industry Advisors provide feedback on business model logic.

7 SLIDE DECK WORKSHOP

Student teams work through their problemproduct and product-market fit. PM and H.S. Instructor offer feedback and guidance on the clarity and logic of their ideas.

8 FINAL REHEARSAL

Opportunity for teams to practice their Final Pitches, and receive documented feedback from the PM, H.S. Instructor, and classmates.

9 FINAL PITCH

The culminating event of NIIMBL bioLOGIC. Student teams present their Final Pitches.

Meetings

PREP FOR FINAL PITCH

H.S. Instructor Meeting 2

Documents

CAREER READINESS WORKSHOP

SD.5 C.R. Worksheet

KICK-OFF

PM.18 K.O. PresentationSD Student Documents

INDUSTRY DAY

ID.6 I.D. Itinerary

COLLEGE DAY

ID.9 C.D. Itinerary

PREP FOR FINAL PITCH

PM.20 H.S. Instructor Meeting 2 Agenda

ID.10 H.S. Instructor F.P. Checklist

PM.22 F.P. Map

PM.4 Email Templates

PM.23 Student Certificates of Completion

FINAL REHEARSAL

PM.24 Final Rehearsal Feedback Document

FINAL PITCH

PM.22 F.P. Map

PM.21 F.P. Scoring Rubric

PM.26 Table Tents

PM.23 Student Certificates of Completion

PM.27 Storyboard

PM.4 Email Templates

People

HIGH SCHOOL

H.S. Instructor

Chaperones

VOLUNTEERS

Final Pitch Panelists Industry Advisors COLLEGE

Outreach Coordinator

INDUSTRY PARTNER

Industry Partner Coordinator

Career Readiness Workshop

3.1 **ABOUT**

The Career Readiness Workshop (C.R. Workshop) takes place prior to Kick-Off and teaches students about business communication and etiquette, how to market themselves, and how to build a professional network.

3.2 **PREP**

Send a reminder email to the H.S. Instructor a few days before the C.R. Workshop. Confirm the following:

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C.R. Workshop date and time

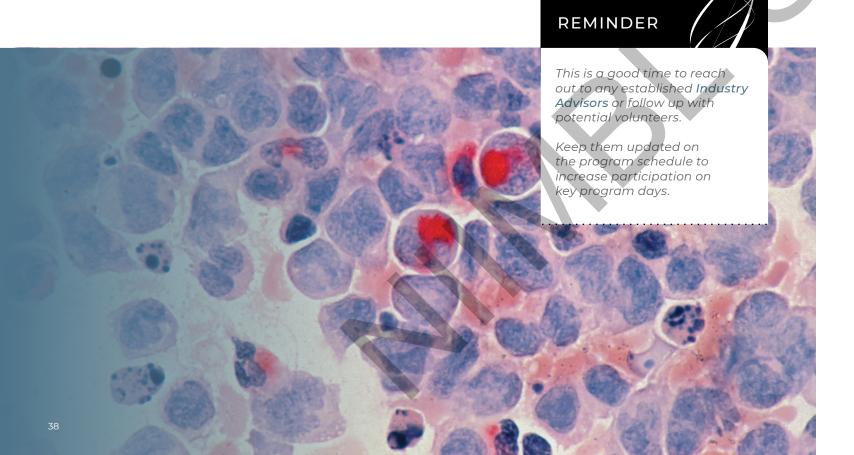
A/V functionality

Prepare to lead the C.R. Workshop.

Print the following documents for students:



SD.5 C.R. Worksheets





EXECUTE

Arrive early to make sure everything is ready for the students.

Lead the C.R. Workshop.

(i)

: Distribute C.R. Worksheets (SD.5) to students



Kick-Off

3.4 ABOUT

Kick-Off is where students are introduced to the program and begin brainstorming problems to address.

3.5 **PREP**

Send a reminder email to the H.S. Instructor at least a week before Kick-Off. Confirm the following:



Kick-Off date and time

A/V functionality

Students have been divided into teams

Transportation and Chaperones have been arranged

Lunch plans are confirmed

If hosting the P.D. Workshop at the H.S., confirm that a venues is reserved

Prepare to present the K.O. Presentation (PM.18)

3.6 EXECUTE

Arrive early to confirm everything is ready for the students.

Lead the Kick-Off.



Distribute Student Document (SD)

Present the K.O. Presentation (PM.18)

If there is time after the presentation, students should work in their teams to identify their problem area

You and the H.S. Instructor should offer guidance

Use the **Social Media Guide (PM.19)** to craft a post about the Kick-Off. This can be done for every Kick-Off, or a few special programs throughout the semester.

Industry Day

3.7 ABOUT

Students tour the Industry Partner's facility. Next, they attend the Product Development Workshop (P.D. Workshop) where they work in teams on their projects, give a one-minute practice pitch on their problem and product concept, and receive guidance and feedback from Industry Advisors and the Program Manager.

3.8 **PREP**

Confirm the venue for the P.D. Workshop.

Send a reminder email to Industry Advisors. Include the following:

+ : Directions, parking suggestions, and the Industry Advisor Guide

Send a reminder email to the H.S. Instructor.

Confirm the following:

Transportation and Chaperones

Student lunch arrangements have been made

Attach the I.D. Itinerary (ID.6)

Ask the H.S. Instructor to text or call when the bus leaves the H.S.

Send a reminder email to the I.P. Coordinator.

Delegate a photographer for the day.

3.9 **EXECUTE**

Arrive at the Industry Partner's facility early to make sure everything is ready for the students.

Facilitate Industry Day

(0)

Tour the facilit

Lead the P.D. Workshop.

(i)

Students should fill out their block diagram, and mock up their product concept

Industry Advisors should offer feedback and guidance

Each team should give a one-minute practice pitch

Take a few photos, and collect a quote from a student, teacher, and/or industry representative

3.10

FOLLOW UP

Send a thank you email to relevant participants.

+ : Invite relevant participants to join you for the Final Pitch

: Use the Social Media Guide (PM.19) to craft a post about Industry Day.



College Day

3.11 ABOUT

Students tour the college to learn more about the school. They also attend the Business Model Workshop (B.M. Workshop).

3.12 **PREP**

Send a reminder email to the Outreach Coordinator. Confirm the following:

• A/V functionality

Building and room number for the student classes

College Admissions Presentation is ready to present

Tour Guide has been identified

Send a reminder email to the H.S. Instructor.

Confirm the following:

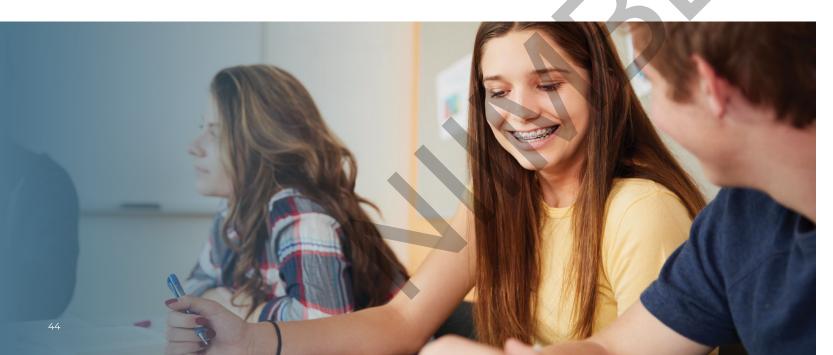
Transportation and Chaperones

Student lunch arrangements have been made

Attach the C.D. Itinerary (ID.9)

Ask the H.S. Instructor to text or call when the bus leaves the H.S.

Delegate a photographer for the day.



3.13 **EXECUTE**

Arrive early to make sure everything is ready for the students.

Facilitate College Day.

Facilitate the Admissions Overview Presentation (PM.8) and Campus Tour

(0)

Attend the College Admissions Presentation

Tour the campus

Lead the Business Model Workshop



Students should work on their financial model

P.M., H.S. Instructor, and Industry Advisors should provide advice

Take a few photos, and collect a quote from a student, teacher, and/or college representative

4 FOLLOW UP

Send a thank you email to relevant participants. Include a photo and quote

Invite relevant participants to join you for the Final Pitch

Use the Social Media Guide (PM.19) to craft a short post on the day. This does not need to be done at every College Day, but should be done a few times a semester. You can also create a storyboard a few times a semester, and post this to your social media platforms.

Prep for Final Pitch

3.15 ABOUT

Work with the H.S. Instructor to finalize details for the Final Pitch, including venue, documents, and key invitees. This can be a standalone meeting, or you can schedule it before or after the Slide Deck Workshop or Final Rehearsal. It is best if you can visit the Final Pitch venue during this meeting.

3.16 **PREP**

Schedule H.S. Instructor Meeting 2 with the H.S. Instructor.

Print the following documents and bring them to the upcoming meeting:

PM.20 H.S. Instructor Meeting 2 AgendaID.10 H.S. Instructor F.P. ChecklistPM.21 F.P. Scoring Rubric





3.17 **EXECUTE**

Attend H.S. Instructor Meeting 2, and refer to the H.S. Instructor Meeting 2 Agenda (PM.20).

Cover the following:

+ : Review common Final Pitch hurdles

Final Pitch venue, venue set up, A/V equipment, and schedule

Invitations

3.18 FOLLOW UP

Create the Final Pitch Full Calendar Invite, including:

: F.P. Map (PM.22)

School Address

Parking Instructions

School Check In Instructions

P.M. Phone Number

Send the Final Pitch invitation Email (PM.4) to Panelists, Industry Advisors, administrators, and any other relevant attendees. Include the following:

→ : Attach the F.P. Map (PM.22)

Thank them for their support

Provide clear directions, sign-in instructions, and contact information

PM contact information (including phone number), and the **Panelist Guide (GD.4)**

Prepare the Student Certificates of Completion (PM.23).

: PM.23 Student Certificates of Completion



Slide Deck Workshop

3.19 **ABOUT**

The Slide Deck Workshop is a working period where the Program Manager and H.S. Instructor offer feedback as student teams create their pitch decks.

3.20 **EXECUTE**

Lead the Slide Deck Workshop.



Students should have a clear problem, product concept, and business model

You and the H.S. Instructor offer guidance on the clarity and logic of their ideas

Each team conducts a two-minute practice pitch on their problem, product, and business model

Final Rehearsal

3.21 **ABOUT**

This is a scheduled class period for each team to run through and receive feedback from P.M., Instructor, and class on their final presentations.

3.22 **PREP**

Update and print the following document:



PM.24 Final Rehearsal Feedback Form

3.23 **EXECUTE**

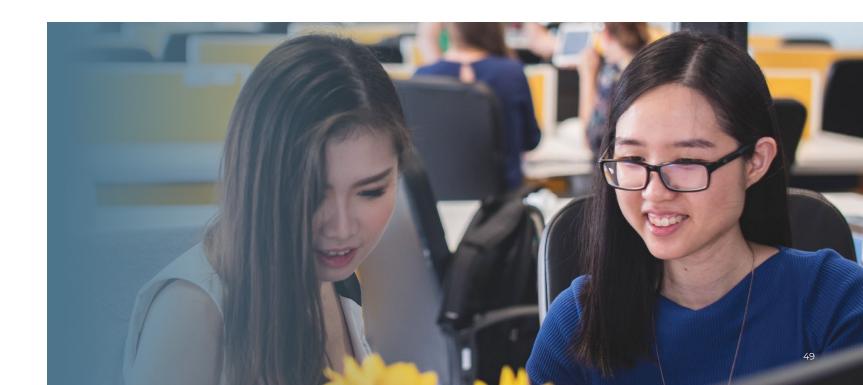
Attend Final Rehearsal.

C

Use the Final Rehearsal Feedback Form (PM.24) to provide documented guidance on what each team should focus on before the Final Pitch, and help teams start to think about what questions the panel may ask.

H.S. Instructor should review the Student F.P. Checklist in the Student Workbook (SD.4) with students

Allow 10–12 minutes for each group to present and receive feedback





blank table tents in case

additional guests wish to panel

Final Pitch

ABOUT 3.24

> The culminating event of the NIIMBL bioLOGIC program. Student teams present their final presentations to Panelists and a general audience. Panelists offer feedback and interact with the teams after they present.

PREP 3.25

Send a reminder email to the H.S. Instructor, Panelists, and other relevant attendees. Include the following:

Attach the F.P. Map (PM.22) and Panelist Guide (GD.4)

Thank them for their support

Provide clear directions, sign-in instructions, and contact information

Review the Emcee Guide (PM.25) for tips on how to lead the Final Pitch.

Delegate a photographer for the day.

Update and print the following documents ensuring there is one Scoring Rubric (PM.21) for each panelist and instructor per team:

PM.21 F.P. Scoring Rubrics

PM.26 Table Tents

EXECUTE 3.26

Meet the H.S. Instructor at the Final Pitch venue early to ensure everything is ready for the students. Confirm the following:



A/V functionality

Table Tents (PM.26) are set up

F.P. Panelist Scoring Rubrics (PM.21) are distributed

Lead the Final Pitch



Welcome everyone and kick off the Final Pitch

Briefly introduce the class and subject

Give an overview of NIIMBL bioLOGIC

Thank attendees and partners

Introduce Instructor and Class, and provide opportunity for Instructor and student to speak

Student teams present their projects

Panelists offer feedback

Brief closing

Distribute Student Certificates of Completion (PM.23) and take group photo, including students, panelists, faculty, and administration.

Collect quotes from students, teachers, panelists, and audience members on the program.

FOLLOW UP 3.27

Complete the following:



PM.27 Storyboard

: Send the F.P. Thank You Email (PM.4) to relevant attendees.



: Attach the Storyboard (PM.27)

Use the Social Media Guide to create a post about the Final Pitch. You can also include the Storyboard.



Program Manager Documents

PM.1	Status Tracker	PM.17	College Day P.M. Itinerary
PM.2	Sync Chart	PM.18	Kick-Off Presentation
PM.3	Annual Metrics Spreadsheet	PM.19	Social Media Guide
PM.4	Email Templates	PM.20	H.S. Instructor Meeting 2 Agenda
PM.5	NIIMBL bioLOGIC Primer	PM.21	Final Pitch Scoring Rubric
PM.6	College Overview Presentation	PM.22	Final Pitch Map
PM.7	College Meeting Agenda	PM.23	Student Certificate of Completion
PM.8	Admissions Presentation Outline	PM.24	Final Rehearsal Feedback Form
PM.9	Agreement Instructions	PM.25	Emcee Guide
PM.10	H.S. Overview Presentation	PM.26	Table Tents
PM.11	H.S. Meeting Agenda	PM.27	Storyboard
PM.12	I.P. Overview Presentation	PM.28	Dual Enrollment Tracker
PM.13	I.P. Meeting Agenda		
PM.14	H.S. Instructor Overview Presentation		
PM.15	School Worksheet		

Instructor Documents

PM.16 H.S. Instructor Meeting 1 Agenda

ID.1	H.S. Instructor Guide	ID.6	Industry Day Itinerary
ID.2	Program Calendar	ID.7	College Day Map
ID.3	H.S. Instructor Action Items	ID.8	College Day Transportation Form
ID.4	Industry Day Map	ID.9	College Day Itinerary
ID.5	Industry Day Transportation Forms	ID.10	H.S. Instructor Final Pitch Checklist





Student Documents

SD.1 SD.2	Student Letter Parent Letter
SD.3	Media Release Form
SD.4	Student Workbook
SD.5	Career Readiness Worksheet

Partner Guides

GD.1	College Instructor Guide
GD.2	College Engagement Guide
GD.3	Industry Advisor Guide
GD.4	Panelist Guide



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