



Fellow/Trainee Roadmap



Introduction to the Curriculum

- Background
- Curriculum Learning Objectives
- Time Commitment
- Curriculum Components
- Curriculum Implementation



Components of Curriculum

- Section 1: Introduction to AS
- Section 2: AS in Everyday Practice
- Section 3: Coaching and Educating on AS
- Section 4: AS Program Logistics



Navigating the IDSA LMS

- Login Credentials
- Accessing Curriculum Courses
- Using eLearning and face to face modules



Additional Information

- Tracking progress and receiving credit
- Evaluation & Survey components





Background:

The IDSA Core Antimicrobial Stewardship (CAS) Curriculum was developed to provide infectious diseases (ID) fellows with foundational education and training in antimicrobial stewardship (AS), regardless of ultimate career plans. The curriculum was designed for use within an existing ID fellowship training program in response to a needs assessment of ID Training Program Directors and to ensure the future ID workforce is equipped to oversee and participate in AS efforts. While the curriculum was designed for adult ID fellows, other learners (e.g. pediatric ID fellows, ID pharmacy residents, practicing ID physicians and pharmacists, medicine residents, and Advanced Practice Providers) desiring education and training in AS will benefit from curricular materials and may adapt them to their own needs. **NOTE: Learners are referred to as “stewards-in-training” throughout the curriculum.**

CAS Curriculum Learning Objectives:

Upon completion of the CAS Curriculum, you will be able to:

1. Explain to patients and health care providers the importance of antibiotic stewardship in the care of individual patients and the community at large
2. Model antibiotic stewardship best practices during the clinical care of patients in the inpatient and outpatient setting
3. Structure a conversation to effect change in the antibiotic prescribing patterns of other providers using techniques based in behavioral psychology
4. Describe elements of an effective antibiotic stewardship program and explain the inter-professional collaborations and leadership support necessary for its success
5. Discuss antibiotic stewardship as a potential career pathway and explain the day-to-day activities of the antibiotic steward

Time Commitment:

The amount of time that you will need to complete each section will vary, but approximately 45 min -1 hour should be allocated for section 1, 90 min - 2 hours for section 2, 1 - 2 hours for section 3, and 4 -5 hours for section 4. Optional enrichment exercises such as the clinical teaching tool and evaluation tools can be readily incorporated into the clinical setting in 5-10 minute increments. Additional time may be necessary for you to read background information and resources if you are unfamiliar with certain concepts or if you would like to explore a given topic in more depth. The evaluation components of this curriculum will also involve limited additional time for both you and your faculty member.

Curriculum Components:

Five Main Sections:

The CAS Curriculum is comprised of five main sections:

- An Introduction to the Antimicrobial Stewardship Curriculum for Fellows
- Section 1: An Introduction to AS
- Section 2: AS in Everyday Practice
- Section 3: Educating and Coaching on AS, and
- Section 4: AS Program Logistics

An Introduction to the Antimicrobial Stewardship Curriculum for Fellows should be completed first, followed by **Section 1: An Introduction to AS**. The other sections can be completed in an order and interval that best fits into the existing ID training program's educational structure.

Application and Reinforcement Tools:

Concepts that were covered in the CAS curriculum can be reinforced using distinct components of the curriculum such as the core concepts handout, five clinical "pearls" pocket cards, and additional reading/resources. The AS Clinical Teaching Tool can be distributed to both faculty and stewards-in-training to apply and reinforce AS principles into everyday clinical practice. In Section 3, you will find a "NARROWS" pocket card that can provide you with communication strategies to positively influence the prescribing habits of others in the clinical setting.

Evaluation tools:

Assessments and knowledge checks are embedded in each section. Additional assessments can be performed in the clinical setting to assess the application of AS principles to real patient care scenarios. The AS Clinical Teaching Tool reinforces principles of AS in everyday practice and can be used to provide formative feedback to stewards-in-training any time after Section 1: An Introduction to AS is completed. An evaluation tool (the NARROWS scoring rubric) reinforces AS-related communication skills and can be used in the clinical setting as a mini-CEX after Section 3: Educating and Coaching on AS is completed.



CAS Curriculum Implementation:

All fellows/trainees must complete a brief "Introduction to the Core Antimicrobial Stewardship (CAS) Curriculum" module through either the Learning Management System or face-to-face with your AS Faculty Champion. You also have this designated user guide to introduce you to the curriculum.

Upon enrollment, you will have access to **ALL** eLearning components of the curriculum; however, training programs can choose which method of curriculum delivery they'd like you to complete. For each section, there is an eLearning option and a face-to-face method available. If you use an eLearning module, your progress through the curriculum will be tracked automatically. If a module is completed using the face - to - face delivery format, a faculty member (with access to the curriculum) will need to log into the LMS to indicate session completion. Methods of curriculum delivery can be combined and should be customized based on a training program's existing resources and structure.



For AS curriculum technical support, please e-mail academy@idsociety.org

Notes:



An Introduction to the Antimicrobial Stewardship Curriculum for Faculty

This introductory section provides each fellow/trainee with a video, learning objectives, guides/resources before starting the CAS Curriculum.

Section 1: Introduction to Antimicrobial Stewardship

Upon completion of this section, you will be able to:

- Define antimicrobial stewardship, its programmatic goals, and key strategies to achieve the goals
- Relate trends and patterns between antimicrobial use and resistance
- Recognize adverse events associated with the use of specific antimicrobials, including the risk for development of *C. difficile* infections
- Describe the role of clinical and laboratory diagnostic tools in improving antimicrobial use
- Define expected outcomes of an ASP

Content in this section is available through (3) eLearning modules. The 3 modules include:

Module 1: An introduction to Antimicrobial Stewardship

Module 2: A Brief Overview of the side effects of antibiotics

Module 3: The Essential Role of the Clinical Lab & Diagnostic Tools

There is a handout highlighting core AS concepts that are introduced in this section. Knowledge check questions embedded in the eLearnings provide a mechanism to assess understanding of concepts.

Section 2. Antimicrobial Stewardship in Everyday Practice

Upon completion of this section, you will be able to:

- Judge when to recommend formal ID consultation or AS intervention
- Recognize the major “infectious diseases syndromes” where antimicrobials are over- and misused in acute care inpatient and outpatient settings, and the stewardship techniques to improve prescribing for these infections
- Identify common process and outcome measures/metrics
- Compare and contrast effective AS techniques in the inpatient vs. outpatient settings

Content in this section is available through (5) case-based eLearning modules. The 5 modules include:

AS in Everyday Practice: A Clinic Visit Case

AS in Everyday Practice: The Antibiotic Approval Request Case

AS in Everyday Practice: The Curbside Call Case

AS in Everyday Practice: The Prospective Audit and Feedback Cas

AS in Everyday Practice: The Rapid Diagnostic Dilemma Case

The cases are based on common ID clinical scenarios and highlight specific AS practices in routine clinical care. Each of the 5 cases has formative questions embedded in the case, suggestions for applying concepts to your institution, and a “clinical pearls” pocket card for reference.

You are encouraged to complete at least 3 AS debriefing activities with your supervising faculty during routine patient care using the AS Clinical Teaching Tool.



Section 3. Educating and Coaching on Antimicrobial Stewardship

Upon completion of this section, you will be able to:

- Explain key behavioral psychology concepts that influence antimicrobial prescribing
- Propose effective techniques to change antimicrobial prescribing practices
- Use provider education techniques to effect change in antimicrobial prescribing
- Demonstrate communication skills to influence antimicrobial prescribing habits of others

Content in this section is available through 3 communication skills scenario eLearnings. Ideally, before starting this section, you will read a brief primer on AS-related communication skills and behavioral psychology.

The 3 modules include:

Scenario 1: Deference to Seniority

Scenario 2: Overly Broad Empiricism

Scenario 3: De-escalation and the Outlier Prescriber

Then, you will be instructed to either complete the eLearning individually or faculty will lead one or more small group discussions while working through the eLearning modules as a group. Several alternative methods can be pursued for content delivery in section 3 such as video discussions or role play scenarios.

If faculty resources are unavailable, you may complete the eLearning modules on your own. This section contains a NARROWS mnemonic and reference pocket card to help you remember AS communication skills to positively influence the prescribing habits of others. There are also a few assessment tools that also accompany this section.

Section 4. Antimicrobial Stewardship Program Logistics

Upon completion of this section, you will be able to:

- Describe key steps in establishing an ASP
- Identify multidisciplinary collaborations necessary for the success of an ASP
- Describe how to implement the core elements of ASPs into practice
- Recognize regulatory and reporting aspects of ASPs
- Describe AS quality improvement and patient safety activities
- Recommend strategies for responding to antimicrobial shortages

Content in this section is available through 2 activities.

The first activity is an antibiotic shortage simulation exercise entitled:
Shortage Mitigation of Antibiotics in Real Time (SMART).

The second activity in this section is the:
Reflective Observation, Brief Interview, and Notation (ROBIN) exercise.

SMART Exercise Preparation:

You should prepare for the shortage exercise by researching the SMART preparation questions. Faculty can distribute the questions and provide a brief primer on the activity or you can access the questions and brief primer via the eLearning module. Ideally, several hours to a week later, faculty will lead a small group exercise while working through the eLearning module as a group. Alternatively, faculty can lead the small group exercise without the eLearning module and can use additional documents to guide discussion.

New to the 2019 CAS Curriculum:

At IDWeek 2018, several ID leaders in antimicrobial stewardship along with several “stewards in-training”, conducted the SMART Exercise in person. This activity, captured through video and audio, is now available for fellows/trainees to review on their own or led as a group by faculty.

ROBIN Exercise Preparation:

For this component of the curriculum, you will prepare for the exercise with a brief primer on medical staff governance and activity instructions using either the eLearning module or PDF documents that are distributed by faculty. After meeting with your CAS faculty champion, plan to either attend 2 leadership activities (such as AS or Infection Prevention meetings) or interview 2 medical staff leaders. You will then prepare a one-page write up giving your impressions.

Faculty will then evaluate the written reflection piece.



Notes:

Notes:



Accessing the Learning Management System:

You can access the curriculum by logging into the address below:
<https://academy.idsociety.org/>

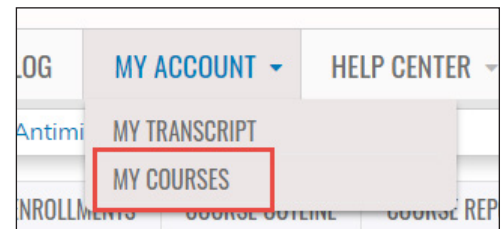
To access the curriculum within the LMS, you must create an account if one does not already exist. If you already have an existing login for your IDSA membership account, you can login with those same credentials.

Accessing the Curriculum:

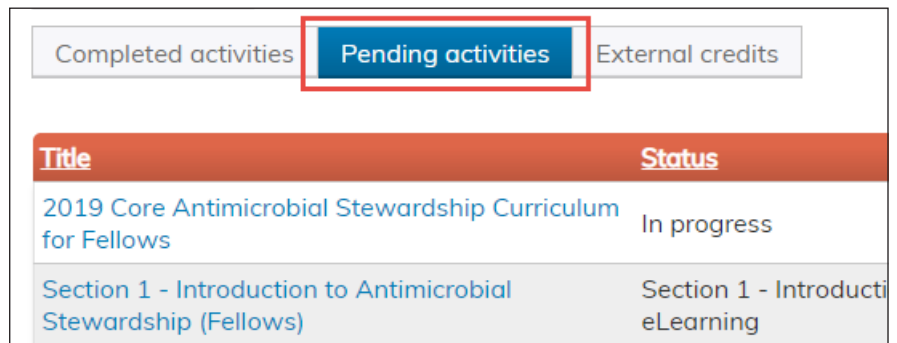
After logging in, you can locate the “2019 Core Antimicrobial Stewardship Curriculum for Fellows” at the very top of the LMS.

Start by clicking “My Account” and then “My Courses”.

You should then see another set of tabs below. Initially, you will find the courses under “Pending activities”. After completion, you can find and reference them under “Completed activities”.



It is mandatory that you must first complete “An Introduction to the Antimicrobial Stewardship Curriculum for Fellows”. Your faculty mentor should then provide instructions for order of completion for the following sections although it is suggested to cover “Section 1: Introduction to Antimicrobial Stewardship” first.



A screenshot of the LMS interface showing the 'Pending activities' tab selected. The tab is highlighted with a red rectangular box. Below the tabs, there is a table with two columns: 'Title' and 'Status'.

Title	Status
2019 Core Antimicrobial Stewardship Curriculum for Fellows	In progress
Section 1 - Introduction to Antimicrobial Stewardship (Fellows)	Section 1 - Introduction to Antimicrobial Stewardship (Fellows) eLearning

Each user will also receive e-mail confirmation about enrollment to the course and can use the links within the e-mail to access the course as well.

Section/Module Navigation

Start by clicking on the Section of your choice.

You will arrive at the course landing page that will provide you with learning objectives, and additional information related to the section.

When you are ready to get started, click "Take Course"

You will then enter the section and can begin further navigation through the left hand side.

SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP (FELLOWS)

2019 CORE Antimicrobial Stewardship CURRICULUM FELLOWS

OVERVIEW FACULTY ACCREDITATION **TAKE COURSE**

Content in this section is available through eLearning modules with additional supporting documentation.

The 3 eLearning modules include:

- An introduction to AS
- A brief overview of side effects of antibiotics, and
- The role of diagnostics in AS.

There is a handout highlighting Core AS Concepts that are introduced in this section. Knowledge check questions embedded in the eLearning provide a mechanism to assess understanding of concepts.

COURSE SUMMARY

Course opens:
Course expires:
Cost:
Parent activity set:
2019 Core Antimicrobial Stewardship Curriculum for Fellows
[Bookmark course](#)

TARGET AUDIENCE
Stewards in Training/ Fellows in Antimicrobial Stewardship Training Program

LEARNING OBJECTIVES
Upon completion of this section, stewards in training will be able to:

Click the circle you would like to display and then click "Start"

In the window to the left, next click "Launch" to open eLearning (it will display in a new window)

COURSE PROGRESS

- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP EARNING
- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP REFERENCE MATERIAL
- SECTION 1 - SIDE EFFECTS OF ANTIBIOTICS

✓ Your enrollment in this course is active

COURSE HOME

COURSE INSTRUCTIONS:
Content in this section is available through eLearning modules with additional supporting documentation.

- An introduction to AS
- A brief overview of side effects of antibiotics, and
- The role of diagnostics in AS.

There is a handout highlighting Core AS Concepts that are introduced in this section. Knowledge check questions embedded in the eLearning provide a mechanism to assess understanding of concepts.

COURSE PROGRESS

- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP EARNING **REQUIRED** **START**
- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP REFERENCE MATERIAL
- SECTION 1 - SIDE EFFECTS OF ANTIBIOTICS

COURSE PROGRESS

- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP EARNING **REQUIRED** **LAUNCH** **RESUME**
- SECTION 1 - INTRODUCTION TO ANTIMICROBIAL STEWARDSHIP REFERENCE MATERIAL
- SECTION 1 - SIDE EFFECTS OF ANTIBIOTICS

Above the "launch" button for each module, you will find all of the links and reference information for that particular module.

At the very end of the section, marked "Reference Information", you will also find **all** of the links and reference information for the entire section.

SECTION 1: REFERENCE INFORMATION **OPTIONAL** **START**

COMPLETE

Understanding eLearning modules

Menu:

Displays the title of each slide on the left hand side

Resources:

Throughout the eLearning module, you may be prompted to click on the Resources button in the upper right hand corner. Resources contains various links to documents and other websites that can help to expand your knowledge.

Notes:

Perfect if you are unable to listen to the audio. You can read the audio "Notes" instead. **NOTE: For some slides, the notes will not change and you should read the text on the screen instead.**

The screenshot shows an eLearning module interface. At the top left is the IDSA logo (Infectious Diseases Society of America). The title is "An Introduction to Antimicrobial Stewardship". In the top right corner, there is a "Resources" button. On the left side, there is a "Menu" and "Notes" section. The "Menu" lists the following items: Introduction to Antimicrobial Stewardship, Welcome (highlighted), Choose your Steward in Training, Sterile Culture Report Review, Meet with Dr. Jones, What's next?, Provide Antibiotic Recommendation, The importance of AS Stewardship Programs, Team Sport, Review Core Concepts, Why Stewardship?, and Thank you. The main content area displays a slide titled "Welcome to Antimicrobial Stewardship University Hospital" featuring a doctor in a white coat standing in front of a hospital building. A large teal circle contains the text "Welcome to Antimicrobial Stewardship University Hospital". Below the circle is a text input field labeled "Enter your name here". At the bottom of the slide, there is a volume icon, a play/pause button, a scrollbar, a refresh button, and a "NEXT" button.

Volume:

Click here to adjust the sound volume

Scrollbar:

Use the scrollbar to stop and start throughout the module. Some slide layers cannot be paused and you should restart the entire slide to review.

Buttons:

Click "Next" and "Previous" to move forwards and backwards within the module. Some buttons will be found inside of the screen to proceed.

Notes:



Tracking progress and receiving credit

If your faculty mentor has chosen to conduct a small group/face to face session with the fellows/trainees instead of eLearning completion; they must go into the system and grant you attendance credit.

All of the eLearnings must be viewed in their entirety or attendance credit given in order for the learning management system to provide you with a certificate of completion at the end.

Your progress should be visible throughout the curriculum.

Title	Status	
2019 Core Antimicrobial Stewardship Curriculum for Fellows	In progress	<input checked="" type="checkbox"/>
An Introduction to the Antimicrobial Stewardship Curriculum for Fellows	Complete	<input checked="" type="checkbox"/>
Section 1 - Introduction to Antimicrobial Stewardship (Fellows)	Enrolled	<input checked="" type="checkbox"/>

Evaluation & Survey Components

In order to complete participation of the CAS Curriculum, the Evaluation team is conducting research for both Program directors or Antimicrobial Stewardship Champions along with Stewards - in - Training.

The Evaluation goals are as follows:

Objective 1: To assess how Infectious Disease fellows' knowledge, attitudes, and practices regarding antimicrobial stewardship (AS) change as a result of the IDSA AS curriculum.

Objective 2: To explore how Infectious Disease fellows' attitudes towards a career in AS are impacted by the IDSA AS curriculum.

Objective 3: To identify barriers and facilitators to implementation of the IDSA AS curriculum at the program and individual level.

Objective 4: To determine if perceptions of programs' current AS curriculum differ between fellows, program directors, and AS champions.

All programs implementing the IDSA AS curriculum will be required to complete the evaluation.

The survey contains questions on AS knowledge, attitudes, and practices in addition to basic demographic information and career interests. All fellows/trainees in programs implementing the curriculum must complete the pre and post survey at the beginning and end of the curriculum in order to get full attendance credit and receive certificate.