



NBME®

National Board of Medical Examiners

QUICK GUIDE

Arranging for and Administering an NBME Web-Based Examination

This document provides a basic orientation to the main activities involved in administering NBME web-based exams offered as a service to medical schools.

NBME web-based testing initiatives currently include:

- Customized Assessment Services
- Musculoskeletal Examination
- Adult Ambulatory Medicine and Adult/Pediatric Ambulatory Medicine
- Medicine Sub-I Examination
- Comprehensive Basic Science Examination

Note: All basic science paper-and-pencil NBME subject examinations will be transitioned to web-based format by the start of the 2010-2011 academic year.

- Clinical Progress Tests (currently in a pilot phase)

Staffing

The NBME Executive Chief Proctor (ECP) has the overall responsibility for ordering/planning the test administration and for assuring that related pre- and post-test activities have been completed.

The ECP must designate a:

- Chief Proctor (CP) to manage the specifics of the test administration.
- Technical Support Coordinator (TechC) to assure that test administration system requirements are met.

Responsibilities of the Chief Proctor

The exams must be administered in a secure, proctored setting. The CP will have access to a centralized *Chief Proctor Resource Site*, which houses all of the system applications in support of test administration. The main duties of the CP are to:

- become oriented to the NBME web-based proctoring software for exam delivery.
- assure that testing room physical arrangements for the computerized exam create a positive, secure working environment in which examinees can feel comfortable and do their best work.
- conduct the exam in strict compliance with the procedures outlined in the *Chief Proctor's Manual*.
- recruit one proctor for every 20 to 25 examinees expected in each testing room, plus additional staff to relieve proctors, if necessary.
- start the test session, monitor the progress of examinees, end the test session, confirm the examinee group for scoring, and file an electronic *Report of Test Administration*.

On the *Chief Proctor Resource Site*, CPs can access the Chief Proctor's Manual and tutorials, administer a practice exam, and perform other necessary tasks associated with test administration cycle.

Responsibilities of the Technical Support Coordinator

The TechC has the primary responsibility for assuring that all computers used for the test administration can deliver the exam securely and successfully. The NBME provides a web-based certification utility that checks both hardware and software configurations (e.g., pop-up blocker disabled, running IE 6.0 or higher, Javascript enabled, etc.). The utility downloads a plug-in that "secures" the browser, thereby preventing the examinee from accessing any other applications during testing. The plug-in remains installed on the computer, and deactivates after the examinee finishes the exam.

Specific duties of the TechC are to:

- set up a dedicated workstation in each testing room for use by the CP.
- run the NBME workstation certification utility on all workstations or institution laptops to be used for test administration.
- provide students with the URL to run the certification utility on personal laptops.
- disable Adware/Spyware control, if possible, to prevent slowness during testing.
- have knowledge of the operating system (OS), virus checker, and browser version that reside on the testing room workstations or student laptops.
- be knowledgeable about the network architecture of the testing rooms.
- assure that an adequate number of IP addresses are available to support testing with laptops.
- verify that internet connection speed is adequate (minimum T1) for testing.
- be available on the test day to resolve technical problems that may arise.

Standard NBME web-based testing system requirements are shown at the end of this document.

Ordering the Examination

The ECP must login to the NBME *Medical School Portal* and enter a test administration order through the Medical School Online Ordering System. The following information must be provided in the web-based exam order:

- test date(s)
- expected number of examinees
- number of examinees
- number of any examinees who need extra testing time and the corresponding exam length (1.5x or 2x the standard time limit allocated for other examinees).
- number of test sessions and the start and end times for each testing day
- names, telephone numbers and e-mail addresses for the CPs assigned to each testing room

Order submission triggers system e-mails to the CPs and TechCs with the information they need to perform pre-test setup tasks. In order to allow adequate time to complete these tasks, the order should be placed *at least two weeks prior to the test date*. Orders cannot be placed <6 calendar days before the test date.

Administering the Examination

The pacing varies by exam. For examinations created by faculty through the Customized Assessment Services program, this is determined by the number of questions selected for the exam and the timing (72 or 90 seconds per question) chosen during the test construction process. For other NBME web-based exams, where the number of questions is fixed, the pacing is determined by the NBME, and averages 75 seconds per question.

Total test session time includes a 15- or 20-minute tutorial (depending on the exam), the time allotment for responding to all questions, and an untimed post-test survey.

After examinees have been admitted and seated, the CP starts the test session and communicates a start-up code to examinees for login purposes. The CP can monitor the progress of all examinees after they launch their exams, and end the test session when they finish. The *Chief Proctor's Manual* includes complete instructions on how to troubleshoot technical or other problems that may occur during the session.

NBME Test Administration Support

NBME staff will be available for test administration support on your test date(s) to respond to technical or procedural issues that may arise. NBME support hours are shown below:

NBME Test Administration Support Hours (US Eastern Time)		
Day	Standard	Extended
Monday to Friday	7:00 am to 6:00 pm	6:00 pm to 8:00 pm
Saturday		8:00 am to 5:00 pm
Sundays/Holidays	Unavailable	

NOTE: Extended time is available only if notice is received by the NBME *at least 14 calendar days in advance*. This is done at the time the test administration order is placed.

Score Reporting

Usually, *preliminary* total test percent correct scores are available immediately after the end of the test session (this feature may not be available for some exams). After the CP ends a test session and files a Report of Test Administration, a Roster Confirmation will appear listing the examinees who tested in the session along with their *preliminary* total test percent correct scores. The percent correct mean, standard deviation, and minimum/maximum scores are also shown. The CP will exclude any records that may be invalid (e.g., duplicate records) and confirm the group to be submitted for final scoring.

The individual total test percent correct scores and summary statistics may be printed, downloaded to Excel or saved as an Adobe reader (PDF) file.

A formal score report, which may include other components such as individual examinee performance profiles and item analyses, is posted to the *Medical School Portal* within two weeks of the test date.

Contact the NBME

Contact nbmewebtest@nbme.org or 215-590-9298 with questions about test administration.

Standard NBME Web-Based Testing Requirements

The standard NBME web-based testing requirements outlined below apply to exams delivered over both wired *and* wireless networks.

Administrator rights for computer setup and configuration are required. Dedicated technical support staff is required prior to and on the test day(s).		
	Windows	Mac OS
Hardware	<ul style="list-style-type: none"> ▪ PC with Intel Pentium 3 1GHz or higher processor ▪ Windows Vista, Windows XP, or Windows 2000 ▪ 512MB of Memory or higher ▪ 17" or larger color monitor recommended ▪ 1024x768 display with 32-bit color setting 	<ul style="list-style-type: none"> ▪ PowerPC or Intel Mac ▪ Mac OS X 10.3.9 – 10.5.1 ▪ 512MB of Memory or higher ▪ 17" or larger color monitor recommended ▪ 1024x768 display with 32-bit color setting
Browser	<ul style="list-style-type: none"> ▪ Microsoft Internet Explorer 6.0 or higher - do not use beta versions. Other browsers are not supported. 	<ul style="list-style-type: none"> ▪ Safari 1.3.2 or higher - do not use beta versions. Other browsers are not supported.
Browser Settings	<ul style="list-style-type: none"> - Pop-ups Enabled - JavaScript Enabled - Cookies Enabled - CSS Enabled - Active X Enabled 	<ul style="list-style-type: none"> - JavaScript Enabled - Cookies Enabled - CSS Enabled
Internet Connection	<ul style="list-style-type: none"> ▪ Broadband Internet connection (DSL, Cable or T1) ▪ Network bandwidth of 256Kbps or higher per computer (including Internet access) ▪ Disable Adware/Spyware programs, if possible, to prevent slowness 	<ul style="list-style-type: none"> ▪ Broadband Internet connection (DSL, Cable or T1) ▪ Network bandwidth of 256Kbps or higher per computer (including Internet access)
Security	<p>Some level of encryption must be in place on the wireless network while the exam is in progress. SSL can be supplemented with another security protocol, such as but not limited to WEP, WPA or WPA2.</p>	
Workstation Certification <i>For exam rooms with fixed workstations and laptops owned by the institution:</i> NBME provides an automated certification utility that checks the workstation and installs a plug-in that secures the browser as the last step. This must be run on every workstation/institutional laptop prior to the test date, including the Chief Proctor's computer.	<p>The process includes downloading the secure browser plug-in that secures the web browser during delivery of the exam, launches a sample test and is required in order to administer the exam.</p>	<p>The process does not include downloading the secure browser in advance because the Mac secure browser application is downloaded when the exam URL is entered by the examinee on test day.</p>

	Windows	Mac OS
Examinees with Personal Laptops	<p>Each examinee using a Windows laptop must run a separate workstation utility on their laptops <i>prior to the test day</i>. Forward the following URL to examinees with personal laptops:</p> <p>http://examinee.nbme.org/cas/setup</p> <p>Examinees should follow the onscreen instructions to run the systems check, install the secure browser and launch the sample practice test. Advise examinees to arrive 30 minutes prior to the exam start time to re-run the system check to detect any problems with the site's firewall.</p>	<p>Advise examinees using a Mac personal laptop to arrive at least 30 minutes prior to the exam start time to download the secure browser and to detect any problems with the site's firewall.</p>

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