PUBLIC HEALTH

Special Concentration in Public Health

Director of Undergraduate Programs: Dana March Palmer PhD, MPH | 405 Low Memorial Library | 212 854 3835 | dm2025@columbia.edu

Some of society's most pressing problems—gun violence, the opioid epidemic, climate change, obesity, mass incarceration, health and healthcare inequalities across the globe—concern public health. These complex problems and the emergence of novel challenges in the future demand a nimble application of public health knowledge and principles, leveraging the foundations of a liberal arts education in order to achieve solutions. Viable solutions will require cross-sector collaborations and systems-level, policy, and environmental action that will affect the social, political, and economic determinants of health. Necessary for leaders to solve these types of societal problems is a broad set of fundamental set of skills. Critical thinking, analytical, problem-solving, and communications skills are necessary to contextualize these problems historically, philosophically, socially, and culturally, and to conceptualize dynamic needs and evidence-based solutions to key parts of these problems.

Public health is integral to a civil society. The many determinants of population health—from the environmental, social, political, and economic factors that shape rates of disease in human populations to the biological factors that ultimately constitute the corporeal mechanisms for disease in individuals—are complex and intertwined. Moreover, how population health is understood, protected, and promoted, is replete with controversies and tensions that are ripe for intellectual interrogation. As such, public health and its connection to civil society is an inherently interdisciplinary area of inquiry. The health and well-being of human populations brings together numerous disciplines, including but not limited to anthropology, architecture, biology, chemistry, demography, ecology, economics, history, international development, mathematics, political science, psychology, sociology, and statistics.

The special concentration in public health is intended to be a secondary emphasis of study that complements the disciplinary specialization of a major or concentration. The goal for the undergraduate special concentration in public health is to foster critical understanding and analysis of the multiple ways in which population health both shapes and is shaped by civil society, complementing the foundation created by the Core curriculum. At the heart of the special concentration in public health are historical and contemporary issues in population health in the context of an increasingly connected, global, urban, aging, and inequitable world. The key themes of inequality, globalization, urbanization, development, the environment, and aging serve as the framework for the constituent courses in the special concentration in public health.

FACULTY

James Colgrove
Linda Fried
Dana March Palmer
Terry McGovern
Rachel Moresky
Ana Navas-Acien

Anne Paxton
Marni Sommer

Special Concentration in Public Health

The special concentration, comprising a minimum of 25 points of coursework, consists of five required courses (16 points) and at least three electives (minimum of 9 points) that provide additional depth and dimension to the underlying themes of the concentration.

Core Public Health Course Requirements

The required courses create a rich intellectual foundation in public health, providing students with a multifaceted view of the social production of health, as well as an integrated exposure to and understanding of the core disciplines of public health. Together, they serve to illuminate and allow students to analyze critically the social production of health and its connections with and implications for civil society. These courses have no prerequisites, and can be taken individually, as the student's schedule permits.

Required Courses for the Special Concentration in Public Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PUBH UN3100</td>
<td>Fundamentals of Global Health</td>
</tr>
<tr>
<td>PUBH UN3200</td>
<td>Introduction to Public Health</td>
</tr>
<tr>
<td>PUBH GU4100</td>
<td>(Y)Our Longer Life</td>
</tr>
<tr>
<td>PUBH GU4200</td>
<td>Environment, Health, and Justice: Concepts and Practice</td>
</tr>
<tr>
<td>HSPB UN2950</td>
<td>Social History of U.S. Public Health</td>
</tr>
</tbody>
</table>

Elective Courses

Elective courses (minimum of 9 points) in the Special Concentration in Public Health will allow students to draw upon courses offered in a wide range of departments and centers across the University. Proposed electives must be approved by the Director of Undergraduate Studies.

Examples of departments with relevant elective courses include: African American Studies; Comparative Literature and Society; The Center for Ethnicity and Race; Earth and Environmental Sciences; Economics; Ecology; Evolution, and Environmental Biology; History; Human Rights; History of South East Asia; Political Science; Psychology; Sociology; Statistics; Sustainable Development; Women's Studies; Urban Studies. Elective courses are designed to allow students to add dimension and depth to their interests in public health, along the main themes of the Special Concentration. Electives may also allow students to amplify the connections to public health in their major area of study. Conversely, students may choose to take electives that allow them to gain more breadth in concepts to which they have been exposed in the set of required public health courses.

Elective Examples (At least 3)

Population Health, Inequality, and Society

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AFAS GU4035</td>
<td>Criminal Justice and the Carceral State in the 20th Century United States</td>
</tr>
<tr>
<td>CPLS GU4320</td>
<td>Marginalization in Medicine: A Practical Understanding of the Social Implications of Race</td>
</tr>
<tr>
<td>CPLS GU4220</td>
<td>Narrative, Health, and Social Justice</td>
</tr>
<tr>
<td>CSER UN3445</td>
<td>City, Environment, and Vulnerability</td>
</tr>
<tr>
<td>CSER UN3905</td>
<td>Asian Americans and the Psychology of Race</td>
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<td>Course Code</td>
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<tr>
<td>CSER UN3924</td>
<td>Latin American and Latina/o Social Movements</td>
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<tr>
<td>CSER GU4340</td>
<td>Visionary Medicine: Racial Justice, Health and Speculative Fictions</td>
</tr>
<tr>
<td>CSER GU4482</td>
<td>INDIGENOUS PEOPLES: MOVEMENT/RTS</td>
</tr>
<tr>
<td>CSER GU4483</td>
<td>SUBCITIZENSHIP</td>
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<tr>
<td>ECON GU4343</td>
<td>Economics of Race in the U.S.</td>
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<tr>
<td>EEEB GU4344</td>
<td>Human Nature: DNA, Race &amp; Identity</td>
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<tr>
<td>HIST UN2523</td>
<td>History of Health Inequality in the Modern United States</td>
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<tr>
<td>HIST UN3437</td>
<td>Poisoned Worlds: Corporate Behavior and Public Health</td>
</tr>
<tr>
<td>HIST UN3911</td>
<td>Medicine and Western Civilization</td>
</tr>
<tr>
<td>HIST W4985</td>
<td>Citizenship, Race, Gender and the Politics of Exclusion</td>
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<tr>
<td>HIST GU4584</td>
<td>Drug Policy and Race</td>
</tr>
<tr>
<td>HIST GU4588</td>
<td>Substance Abuse Politics in African-American History</td>
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<tr>
<td>HRTS BC3850</td>
<td>Human Rights and Public Health</td>
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<tr>
<td>HRTS GU4215</td>
<td>NGOs # THE HUMAN RIGHTS MOVEMENT</td>
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<tr>
<td>HRTS GU4230</td>
<td>Refugees, Forced Migration, and Displacement</td>
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<tr>
<td>HRTS GU4500</td>
<td>SOCIO-ECONOMIC RIGHTS</td>
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<tr>
<td>HRTS GU4700</td>
<td>Ethical Dilemmas in Healthcare: A Human Rights Approach</td>
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<tr>
<td>HRTS GU4880</td>
<td>Human Rights in the United States</td>
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<tr>
<td>POLS UN3220</td>
<td>Logic of Collective Choice</td>
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<tr>
<td>POLS UN3245</td>
<td>Race and Ethnicity in American Politics</td>
</tr>
<tr>
<td>POLS UN3595</td>
<td>Social Protection Around the World</td>
</tr>
<tr>
<td>SOCI V2230</td>
<td>Food and the Social Order</td>
</tr>
<tr>
<td>SOCI W2420</td>
<td>Methods for Social Research</td>
</tr>
<tr>
<td>SOCI UN3010</td>
<td>Sociology of African American Life</td>
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<tr>
<td>SOCI W3214</td>
<td>Immigration and the Transformation of American Society</td>
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<tr>
<td>SOCI UN3261</td>
<td>Sexuality and Society</td>
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<tr>
<td>SOCI UN3265</td>
<td>MINORITIES/ETHNIC GP-AMER LIFE</td>
</tr>
<tr>
<td>SOCI UN3323</td>
<td>Race, Gender, Sexuality, and Punishment</td>
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<tr>
<td>SOCI W3643</td>
<td>Stratification and Inequality</td>
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<tr>
<td>SOCI W3913</td>
<td>Race and Ethnicity in a Global World</td>
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<tr>
<td>SOCI UN3914</td>
<td>Seminar in Inequality, Poverty, and Mobility</td>
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<tr>
<td>WMST GU4506</td>
<td>Gender, Justice</td>
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<tr>
<td>SOCI UN3915</td>
<td>Stigma and Discrimination</td>
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<tr>
<td>SOCI UN3920</td>
<td>Social Networks</td>
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<tr>
<td>SOCI UN3931</td>
<td>Sociology of the Body</td>
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<tr>
<td>SOCI W3923</td>
<td>Adolescent Society</td>
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<tr>
<td>SOCI UN3960</td>
<td>Law, Science, and Society</td>
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<tr>
<td>FSPH UN1100</td>
<td>FOOD, PUBLIC HEALTH &amp; PUBLIC POLICY</td>
</tr>
<tr>
<td>HIST GU4811</td>
<td>Encounters with Nature: The History of Environment and Health in South Asia and Beyond</td>
</tr>
<tr>
<td>HRTS GU4915</td>
<td>Human Rights and Urban Public Space</td>
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<tr>
<td>HSEA GU4844</td>
<td>GLOBAL HONG KONG</td>
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<tr>
<td>SDEV UN2300</td>
<td>Challenges of Sustainable Development</td>
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<tr>
<td>SDEV UN3330</td>
<td>Ecological and Social Systems for Sustainable Development</td>
</tr>
<tr>
<td>SDEV UN3350</td>
<td>(Environmental Policy and Governance for Sustainability)</td>
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<tr>
<td>SDEV UN3355</td>
<td>Climate Change and Law</td>
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<tr>
<td>SDEV UN3360</td>
<td>Disasters and Development</td>
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<tr>
<td>SDEV UN3400</td>
<td>Human Populations and Sustainable Development</td>
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<tr>
<td>SDEV UN3410</td>
<td>Cities # Sustainability</td>
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<tr>
<td>SOCI UN3324</td>
<td>Global Urbanism</td>
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<tr>
<td>URBS UN3450</td>
<td>Neighborhood and Community Development</td>
</tr>
<tr>
<td>URBS UN3993</td>
<td>Senior Seminar: The Built Environment</td>
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<tr>
<td>URBS UN3565</td>
<td>Cities in Developing Countries: Problems and Prospects</td>
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<tr>
<td>URBS UN3581</td>
<td>Metropolitics of Race and Place</td>
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<td>URBS UN3550</td>
<td>Community Building and Economic Development</td>
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<tr>
<td>URBS UN3565</td>
<td>Cities in Developing Countries: Problems and Prospects</td>
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<td><strong>Individuals, Bodies, and Population Health</strong></td>
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<tr>
<td>FSEB UN1020</td>
<td>Food and the Body</td>
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<tr>
<td>PSYC UN2460</td>
<td>Drugs and Behavior</td>
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<td>PSYC UN2480</td>
<td>The Developing Brain (The Developing Brain)</td>
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<td>PSYC UN2650</td>
<td>Introduction to Cultural Psychology</td>
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<td><strong>Quantitative Foundations</strong></td>
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<tr>
<td>STAT UN1001</td>
<td>INTRO TO STATISTICAL REASONING</td>
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<tr>
<td>STAT UN1101</td>
<td>Introduction to Statistics</td>
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<td><strong>Globalization, Urbanization, Development, and the Environment</strong></td>
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<tr>
<td>EEEB GU4127</td>
<td>Disease Ecology</td>
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<td>EEEB GU4111</td>
<td>Ecosystem Ecology and Global Change</td>
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<td>EEEB GU4260</td>
<td>Food, Ecology, and Globalization</td>
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<td>EESC UN2330</td>
<td>SCIENCE FOR SUSTAINABLE DEVPT</td>
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<tr>
<td>EESC W4403</td>
<td>Managing and adapting to climate change</td>
</tr>
<tr>
<td>EESC GU4600</td>
<td>EARTH RESOURCES # SUSTAIN DEV</td>
</tr>
</tbody>
</table>
Public Health Special Concentration

Course List

PUBH UN3100 FUNDAMENTALS OF GLOBAL HEALTH. 3.00 points.
Many of the greatest challenges in public health are global. This course uses a multidisciplinary approach to discuss the major underlying determinants of poor health and the relationship between health and political, social, and economic development. Drawing upon the sciences, social sciences, and humanities, students will be introduced to the evolution of modern approaches to the setting of global health priorities, the functions and roles of health systems, an overview of current global health practices, and the major institutional players in global health. The first unit of the course will focus on establishing the foundations for a public health approach to understanding the challenges of global health. The second unit will explore the factors shaping the global distribution of disease and their connection with issues of social, economic, and political development, as reflected in the Millennium Development Goals. The third and final unit builds upon this analysis to demonstrate the multi-disciplinary, multi-level approach required to effectively address global health priorities, and the political and organizational cooperation required to achieve this. The class concludes with an analysis of the major challenges and threats to global coordination regarding such threats as pandemic influenza and emerging health threats related to climate change. Offered in the spring.

Spring 2022: PUBH UN3100
Course Number | Section/Call Number | Times/Location | Instructor | Points | Enrollment
--- | --- | --- | --- | --- | ---
PUBH 3100 | 001/11602 | M W 4:10pm - 5:25pm Online Only | Rachel Moresky | 3.00 | 96/100

PUBH UN3200 INTRODUCTION TO PUBLIC HEALTH. 3.00 points.
An introduction to and overview of public health. Through a series of sessions with leading public health experts, this course views the multifaceted nature of public health through a prismatic lens addressing key concepts, approaches, and issues of historical and contemporary import: What is public health and how has public health evolved over time? What are the core methods of public health? What are the approaches to understanding and addressing both infectious and chronic, non-communicable diseases? What role do micro- and macro-level determinants (i.e. biology and social context) play in public health? What are the global trends in population health? How does the individual life course bear on population health? How do systems, policy, and population health mutually shape each other? How are public health programs designed and evaluated? What are the limits of public health?

Spring 2022: PUBH UN3200
Course Number | Section/Call Number | Times/Location | Instructor | Points | Enrollment
--- | --- | --- | --- | --- | ---
PUBH 3200 | 001/11675 | M W 1:10pm - 2:25pm 501 Schermerhorn Hall | Dana March | 3.00 | 117/140

Fall 2022: PUBH UN3200
Course Number | Section/Call Number | Times/Location | Instructor | Points | Enrollment
--- | --- | --- | --- | --- | ---
PUBH 3200 | 010/11955 | T Th 1:10pm - 2:25pm 428 Pupin Laboratories | Dana March, Lauren Westley | 3.00 | 188/180

PUBH UN3400 Data Science and Health Equity in New York City. 3.00 points.
This course, which has no pre-requisites, teaches students about data science and public health. Students will create and answer public health research questions related to health equity in NYC. The course will use publicly available NYC health data to learn the seven steps of data science: 1) writing a research question; 2) obtaining data to address the question; 3) data cleaning; 4) data exploration; (5) analysis; 6) replication and validity evaluation; and (7) presentation and summary. The course will introduce students to R.

Fall 2022: PUBH UN3400
Course Number | Section/Call Number | Times/Location | Instructor | Points | Enrollment
--- | --- | --- | --- | --- | ---
PUBH 3400 | 010/11961 | T Th 4:10pm - 5:25pm 301 Uris Hall | Mary Beth Terry, Abigail Greenleaf, Lauren Westley | 3.00 | 100/100

PUBH GU4100 (Y)OUR LONGER LIFE. 3.00 points.
People are living 30 years longer than we did 100 years ago. We have created a whole new stage of life. How do we prepare to benefit from our longer lives? What can you do in your own life? This course explores the personal, population, community, and societal dimensions of our now-longer lives, of aging itself, and the role of health and societal design in the experience of aging. The course examines the meaning of aging and the attendant expectations, myths, fears, and realities. The course examines an aging society as a public health success, the potential for building health futures, the health plan you want to be healthy in old age, and the potential for longer lives and how we unlock it. It addresses the roles public health currently plays and can play in shaping a society for an aging population. The course explores how a public health system—indeed, a society—optimized for an aging population stands to benefit all. The course also examines the physical, cognitive, and psychological aspects of aging, the exposures across our lives that affect these, the attributes and challenges of aging, keys to successful aging, and aging around the globe. The culminating project will design elements of our society that are needed to support the opportunity of having longer lives. This course comprises lectures, class discussions, individual assignments, in-class case activities, and a group project in which students shall take an active role. You will be responsible for regular preparatory assignments, writing assignments, one group project, and attending course sessions. Please note: GSAS students must receive permission from their department before registering for this course.

Spring 2022: PUBH GU4100
Course Number | Section/Call Number | Times/Location | Instructor | Points | Enrollment
--- | --- | --- | --- | --- | ---
PUBH 4100 | 001/11676 | T Th 4:10pm - 5:25pm 428 Pupin Laboratories | Dana March | 3.00 | 84/125
PUBH GU4200 Environment, Health, and Justice: Concepts and Practice.  
3 points.
Please note: this class was designed as part of the Special Concentration in Public Health. It is open to undergraduates, as well as students in Public Health, and will be taught on the Morningside campus.

This course introduces key concepts on environmental health sciences and environmental justice and their application to address environmental health disparities affecting communities in New York City, across the United States and globally. The course will present theory and methods needed to characterize, understand and intervene on environmental health problems with a focus on methods that are particularly appropriate for environmental justice research and interventions. We will describe environmental health disciplines such as exposure sciences, environmental epidemiology, environmental biosciences and toxicology, as well as methods to assess expected environmental health impacts.

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<th>Course Number</th>
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<th>Instructor</th>
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<th>Enrollment</th>
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<tr>
<td>PUBH 4200</td>
<td>010/11969</td>
<td>M W 10:10am - 11:25am</td>
<td>Lauren Westley, Ana Navas Acien</td>
<td>3</td>
<td>71/100</td>
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</table>

HSPB UN2950 Social History of U.S. Public Health. 4.00 points.
The purpose of this course is to provide students with an historical understanding of the role public health has played in American history. The underlying assumptions are that disease, and the ways we define disease, are simultaneously reflections of social and cultural values, as well as important factors in shaping those values. Also, it is maintained that the environments that we build determine the ways we live and die. The dread infectious and acute diseases in the nineteenth century, the chronic, degenerative conditions of the twentieth and the new, vaguely understood conditions rooted in a changing chemical and human-made environment are emblematic of the societies we created. Among the questions that will be addressed are: How does the health status of Americans reflect and shape our history? How do ideas about health reflect broader attitudes and values in American history and culture? How does the American experience with pain, disability, and disease affect our actions and lives? What are the responsibilities of the state and of the individual in preserving health? How have American institutions--from hospitals to unions to insurance companies--been shaped by changing longevity, experience with disability and death?

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<td>001/15299</td>
<td>T Th 8:40am - 9:55am</td>
<td>James Colgrove</td>
<td>4.00</td>
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<tr>
<td>HSPB 2950</td>
<td>AU1/18559</td>
<td>T Th 8:40am - 9:55am</td>
<td>James Colgrove</td>
<td>4.00</td>
<td>5/5</td>
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